

**NI 43-101 TECHNICAL REPORT
ON THE DIVISION MOUNTAIN
COAL PROPERTY, YUKON
TERRITORY, CANADA**

Located at Latitude 61⁰ 20' N and
Longitude 136⁰ 05' W

Submitted to:
Yukoterre Resources Inc.

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1 Executive Summary

The Division Mountain coal deposit is located 90 kilometers north-northwest of Whitehorse in south western Yukon Territory. Access is by a 31 kilometer four-wheel drive road leaving the Klondike Highway at Braeburn. The project area lies 20 kilometer west of the highway and parallels the Yukon Energy Corporation electrical transmission grid. This point is 290 kilometers by road from a year-round tidewater port at Skagway, Alaska.

The coal deposit is 100 % owned by Yukoterre Resources Inc. (“Yukoterre”) Most of the area of detailed exploration at Division Mountain lies within five coal leases and one licence area. The Yukon Territory grants mining rights for a renewable twenty-one year term on the leases and the licence is renewable under a three year term with annual payments to remain in good standing. In addition, Yukoterre owns three (3) additional Territorial Coal Exploration Licences encompassing approximately 60,862.8 hectares (ha) of coal bearing stratigraphy in the Division Mountain area. These were acquired from Pitchblack Resources Inc. in 2017 and are held under renewable three-year terms.

Previous exploration at Division Mountain has been directed toward outlining sufficient coal deposits to support an export coal mine and/or a mine mouth 20 to 50 megawatt generating station for a period in excess of twenty years. Exploration on the property occurred between 1972 and 2008, and has comprised of 10.2 kilometers of excavator trenching, 68 diamond drill holes totaling 11,442 meters, 20 reverse circulation percussion drill holes totaling 1,869 meters, and four rotary air blast drill holes totaling 126.2 meters.

Reverse circulation percussion drilling, excavator and hand trenches have exposed both coal and favorable stratigraphy within a 7.5 kilometer radius of the Division Mountain coal deposit from previous exploration efforts prior to Yukoterre acquiring the property. There are also numerous other known coal occurrences within the licence holdings, many of which have not been extensively explored. They include coal occurrences at Vowel Mountain, Corduroy Mountain, Upper and Lower Cub Mountains, and the western portion of Division Mountain.

Previous exploration at Division Mountain has served to identify an historical probable reserve of 26.4 million tonnes and a historical measured resource of 52.5 million tonnes (Mt) of high Volatile "B" Bituminous coal determined by a technical report on the Geological Reserves in Division Mountain by Norwest Corporation in 2008. The Division Mountain deposit remains open to the southeast, north, and west.

Approximately 47.2 Mt of the historical resource falls into the area covered by the five coal leases while 5.3 Mt lie just to the southeast of leases, on licenses also controlled by Yukoterre. It is proposed that the leases be extended to cover the entire deposit.

It is noted that these reserves and resources described by Norwest in 2008 are deemed as being historical in nature. A qualified person has not done sufficient work to classify the historical estimates as current mineral resources or mineral reserves under National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”). Yukoterre is not treating the historical estimate as current mineral resources or mineral reserves. The historical reserves and resources therefore cannot be construed in any manner as to ascertain the potential economic viability of the Division Mountain coal deposit. For clarity, there are no current NI 43-101 mineral resource or mineral reserve estimates on the Division Mountain property.

The coal at Division Mountain also holds the potential to host coal bed methane and/or conventional hydrocarbons. This has been documented in a number of assessment reports and most recently by several studies on the hydrocarbon potential of the Whitehorse Trough by the Yukon Geological Survey. Historical estimates for coal bed methane were noted in exploration efforts in the 1990’s by R.C. Carne but have not been investigated to any degree. Therefore the overall potential of coal bed methane deposits within the Division Mountain deposit and the exploration licences can only be described as inconclusive. However, recent study efforts by the Yukon Geological Survey on the potential for both conventional and unconventional hydrocarbon resources within the Whitehorse Trough highlighted the Division Mountain area as potentially a good host area and this is very encouraging.

There has been a lot of historical geological, environmental and engineering studies conducted on the property. Yukoterre has completed an internal compilation report of these significant studies which include:

- Norwest Corporation., 2008. **NI 43-101 Technical Report on Coal Resources and Reserves of the Division Mountain Property, Yukon Territory.**
- Norwest Corporation., 2008. **Division Mountain Project Pre-Feasibility Study** for Cash Minerals Ltd.
- SNC-LAVALIN Thermal Power, 2006 **Division Mountain Power Project** for Cash Minerals Ltd.
- The McCloskey Group, Ltd., 2008. **The Markets for Division Mountain Steam and PCI coals** for Cash Minerals Ltd.

None of these reports are considered to be current, and Yukoterre as the new property owner would have to complete its own verification efforts in order to update these to current NI 43-101 standards.

Project permitting would need to include detailed work plans for environmental studies, marketing studies, First Nations relations and consultation processes, and all of the requirements for a project application is a logical step that would need to be undertaken by Yukoterre to advance the Division Coal Project into the pre-development phase.

However, the current objective of Yukoterre is to review the compilation of the historical, geological, environmental and engineering studies conducted on the Division Mountain property and conduct an exploration program to examine the potential for additional coal deposits on Division Mountain and the surrounding area. In this regard, the work recommendations are limited to an examination of identifying additional coal deposits to the southwest of the known Division Mountain coal deposit. The proposed exploration budget is \$100,000.

2 Introduction

The Division Mountain coal property is located at latitude 61°20' North and longitude 136°05' West on NTS map sheet 115 H/8, 90 kilometers north-northwest of Whitehorse and 290 kilometers from tidewater at Skagway, Alaska (See Figure 2.1). It is 100% owned by Yukoterre of which most of the deposit is covered by five coal mining leases with the remainder covered by an exploration licence. The coal deposits occur within the Whitehorse Trough. Other coal deposits within the northernmost and central portions of the Trough have either been mined out or have limited potential to host economic coal deposits.

Recently, the author of this report was contracted by Yukoterre who recently acquired all of the coal leases and licences from Pitchblack Resources Inc., to compile all previous work related to the detailed studies of the Division Mountain deposit and surrounding area. A compilation report was completed but has not been publicly released.

This report now summarizes the key aspects of the compilation report, details the 2018 exploration efforts of Yukoterre on the Division Mountain project, and future plans to explore for additional coal deposits. It is believed that a majority of the previous work conducted by Norwest is reliable based on the processes and practices that the author understands Norwest followed and estimated in accordance with NI 43-101 standards at that time, but as a new owner of the property Yukoterre would need to conduct their own verification any environmental, geological, geotechnical or engineering studies.

The author's most recent property visit was in June 2018 related to the 2018 exploration efforts by Yukoterre.

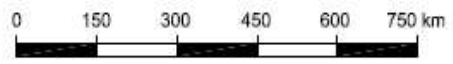
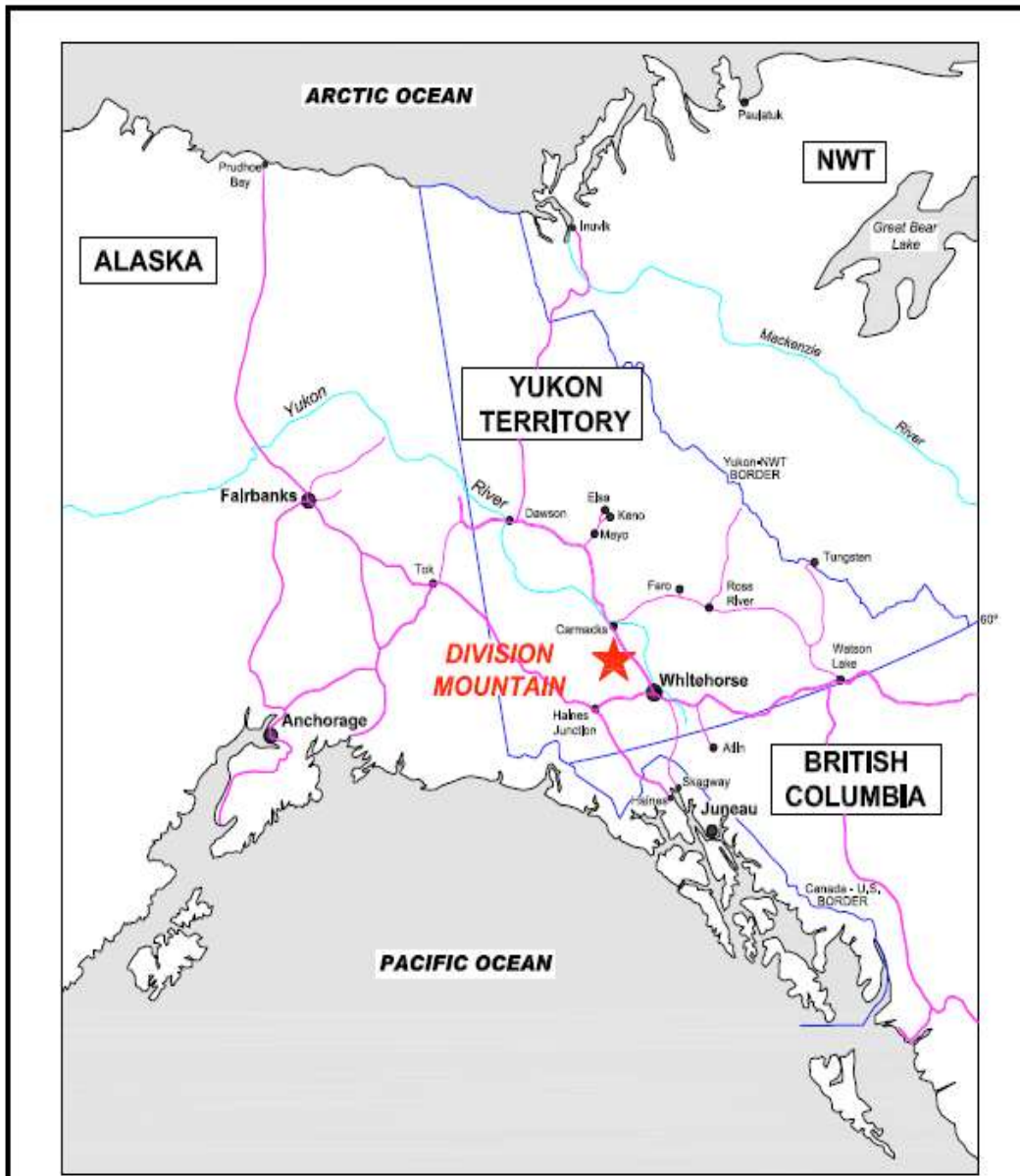


FIGURE 2.1

2560344 Ontario Inc.
DIVISION MOUNTAIN
PROPERTY LOCATION

DATE: 01/05/2017 K. Brewer P,Geo.

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3. Reliance on Other Experts

Claim Information: Information about the location and status of five coal leases and four coal exploration licenses was provided by company documents and offices of the Whitehorse mining recorder. The author has independently verified their validity.

4. Property Description, Location, Leases and Licences

The Division Mountain deposit is located at latitude 61°20' North and longitude 136°05' West on NTS map sheet 115 H/8, 90 kilometers north-northwest of Whitehorse and 290 kilometers from tidewater at Skagway, Alaska (Figure 2.1).

The area of detailed exploration and historical resource definition at Division Mountain lies largely within five coal leases. These leases are held by Yukoterre and cover 776.4 ha (See Figure 4.1). Under the Yukon Coal Regulations Act, the five coal leases grant coal mining rights for a renewable twenty-one year term that can be extended for additional twenty-one year periods. The coal leases are kept in good standing through a payment of \$1/acre payable yearly in advance. Work conducted on the leases may be applied against the levy charges for a maximum period of five (5) years. In addition to the annual rental, a lessee shall pay annually a royalty at the rate of \$0.10 per ton on merchantable coal mined on lands acquired by the lease. The lessee is the only party that is entitled to the coal upon, or included in such lease. The leases are currently in good standing and with annual payments will extend all lease rights to Yukoterre to April 18, 2038 (See Table 4.1).

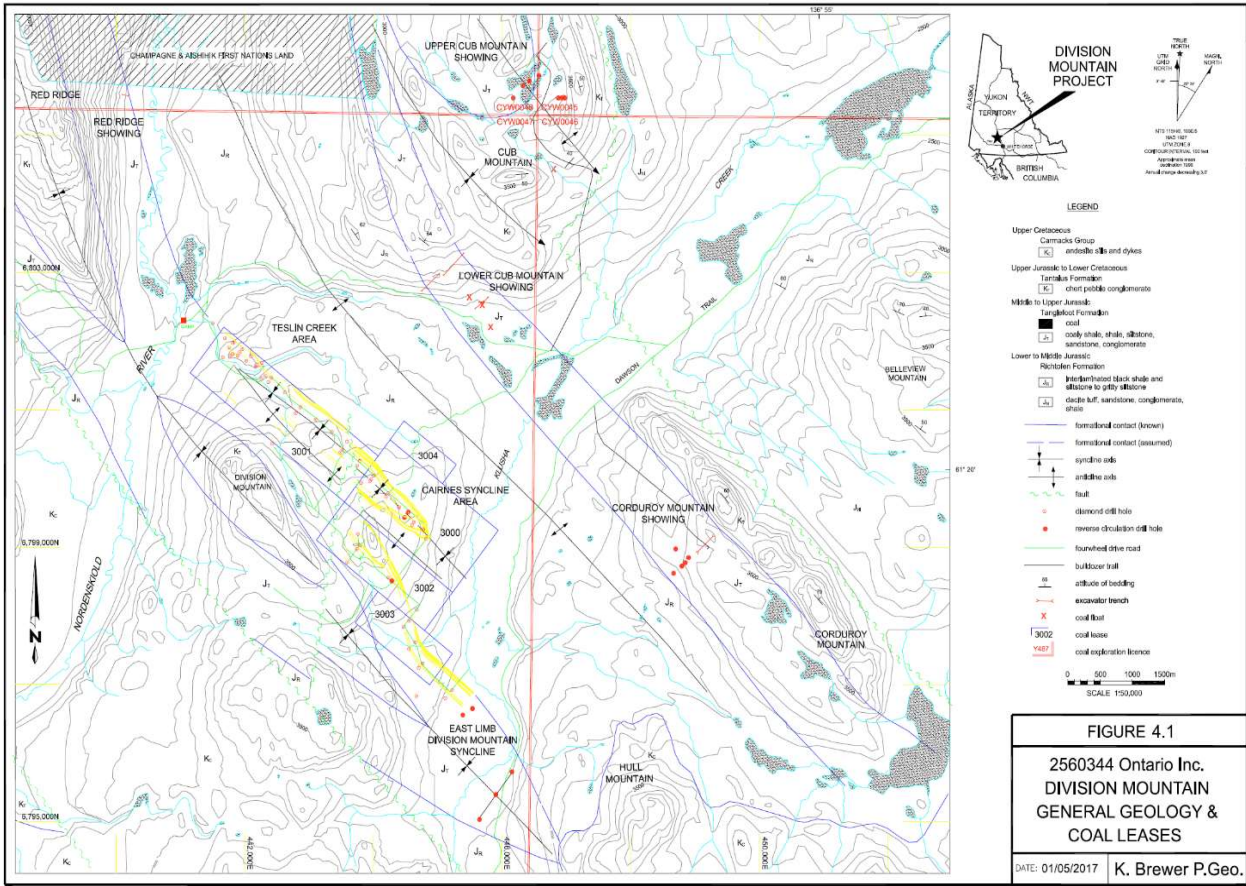
In addition, four (4) contiguous Territorial Coal Exploration Licences are also held by Yukoterre in the Division Mountain area (See Figure 4.2). The licences cover a total area of 60,862.8 hectares. Under the Coal Regulations Act, these licences are valid for a three-year, renewable term (see Table 4.1).

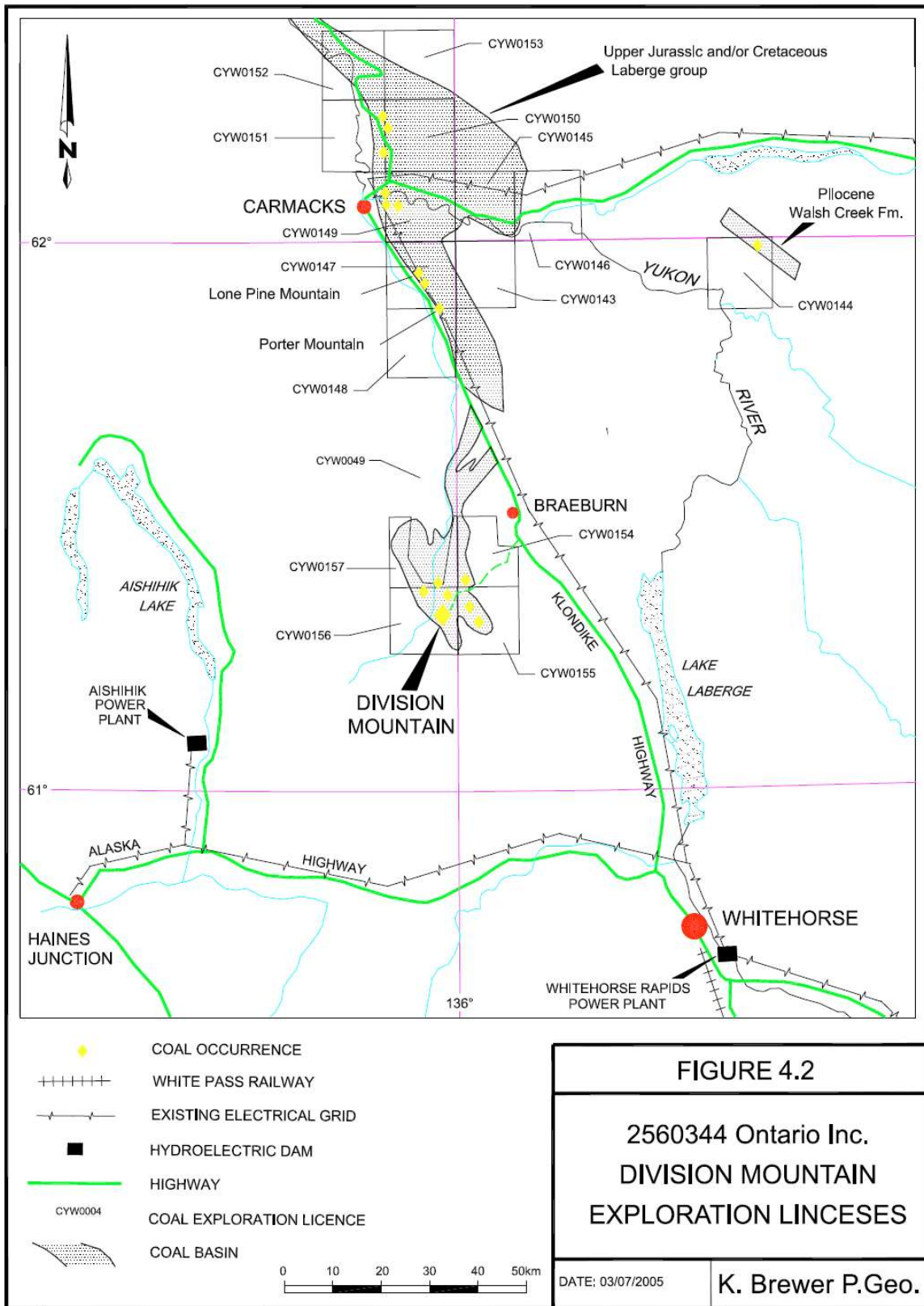
The exploration licences and leases encompass Upper Jurassic, Lower Cretaceous and Tertiary coal-bearing stratigraphy including a number of previously known coal occurrences. Renewal dates of both Licences and Leases are given below in Table 4.1.

TABLE 4.1 CLAIM LIST

License No.	Mining District	Renewal Date
CYW0154 and CYW0155	Whitehorse	07-Sept-2019
CYW0156 and 0157	Whitehorse	6-March-2020
Lease No.		
CMW3000 to 3004	Whitehorse	18-April-2038

Under the Yukon Coal Regulations Act, exploration licenses are currently subject to rental fees of \$0.05/acre in the first year, \$0.10/acre in the second year and \$0.20/acre in the third and final year for each license period. Costs incurred by the license holder on exploration work may be reported to the Yukon Mining Recorder and credited against rental fees.





5 Accessibility, Physiography, Local Resources, Infrastructure and Climate

5.1 Accessibility

Access is by 85 kilometers of paved highway from Whitehorse northwards on the Dawson Highway to Braeburn and then on a 31 kilometer all-season four-wheel drive road from Braeburn (Figure 5.1) to Division Mountain.

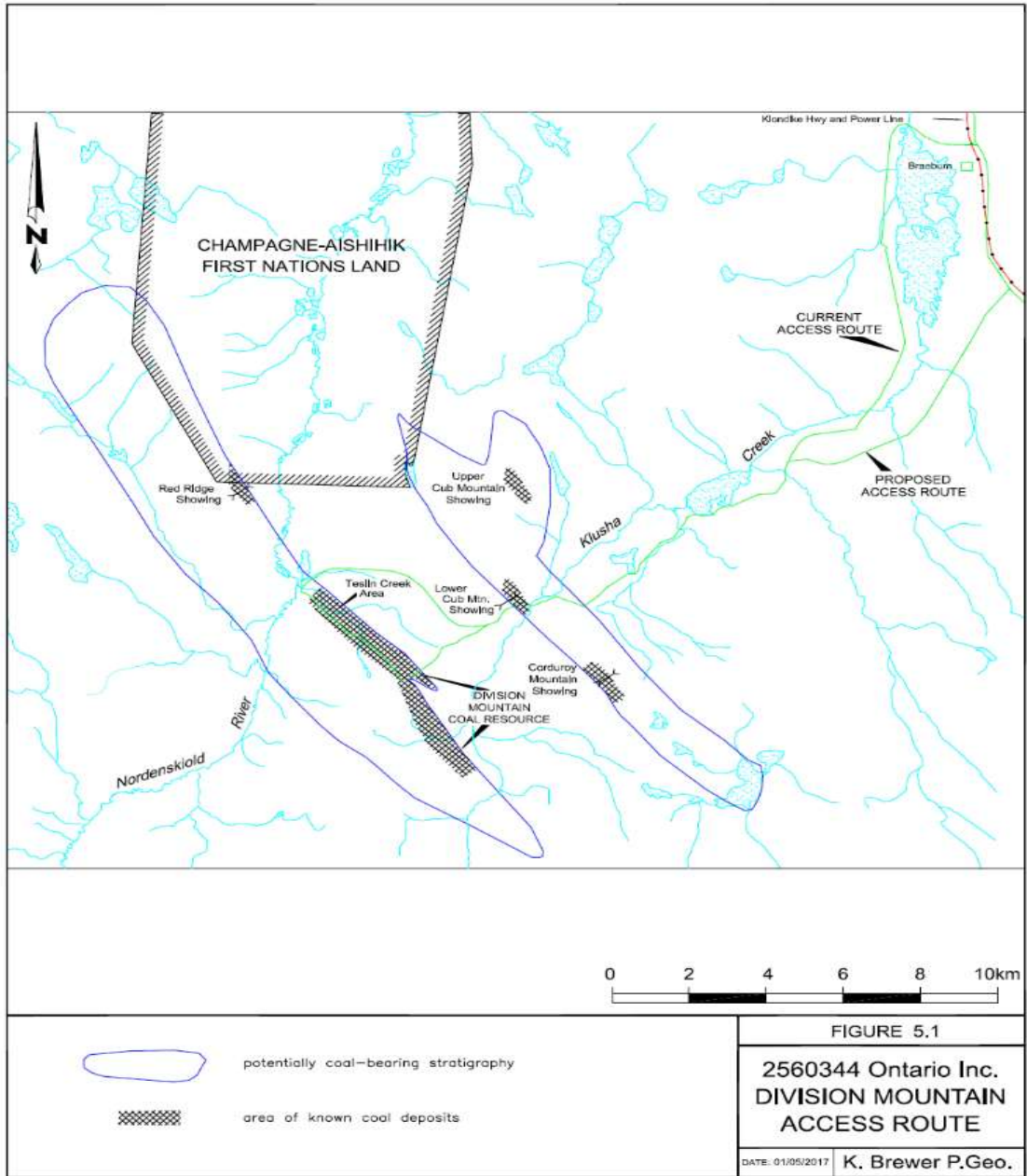
Approximately one kilometer north of Braeburn Lodge you turn westward into a residential area. The northernmost portion of the lake has to be forded and this crossing is generally 50 meters wide and approximately 0.5-0.75 meters deep. Just after the crossing there is a private accommodation - Scuttlebutt Lodge - which can provide crew accommodations and logistical support. The trail then continues to the northwest and eventually joins the historic Dawson Trail stage route, which then extends southward and westward for a distance of approximately 22.5 kilometers to a point opposite the northwest end of Corduroy Mountain and approximately due east of the coal occurrences at Division Mountain. From this point, a variety of exploration trails have been constructed over the decades of activity in the area. The main property trail extends another 8.5 kilometers westward across Klusha Creek Valley and then climbs up the slopes of Division Mountain to the southernmost portion of the deposit area. There are a number of short steep grades (7 – 15% slope) along the stretch just prior to the trail descending into the Nordenskiöld valley.

The access trail is generally 3-7 meters wide and is currently passable with a both a four wheel drive truck, all-terrain vehicles, and equipment such as drills and heavy equipment.

5.2 Physiography

Tree line in the property area is at approximately 1300 meters on south-facing slopes with willow, alder and black spruce at lower elevations giving way to dwarf birch, alder and stunted spruce at tree line, and finally to grass and lichen at elevations above 1500 meters. Stands of heavy timber occur at lower elevations near Braeburn Lake.

Topography in the Division Mountain area is characterized by rolling hills and broad river valleys with local regions of moderate to steep relief along northerly-trending ridges. Elevations range between 670 and 1680 meters. Most of the area is mantled by glacial till and outwash between 1 and 60 meters thick. Permafrost is generally restricted to poorly drained areas of moderate to dense vegetation. Natural bedrock exposure is less than 5%, especially within the generally recessive coal measures. Creeks flowing to the north and west off the property are tributaries of the Nordenskiöld River (approximately 5-8 meters wide and 2 meters deep), which is part of the Yukon River watershed, while creeks draining to the south and east flow into Klusha Creek (approximately 3 to 4 meters wide and one meter in depth), which joins the Nordenskiöld River further to the north.



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Several small lakes are present, some of which cover areas of up to 1.0 square kilometer. The whole area is covered with volcanic ash to a depth of about 6 inches (Teslin Exploration Ltd., 1970). The area appears to have escaped Pleistocene glaciation but glacio-fluvial outwash and loess exceeding 30 meters or more in thickness typically mantles all of the area below the 900 meter elevation level (Carne, 1992). Above the 900 meter elevation level, residual overburden cover is typically thin and bedrock exposures are more common.

5.3 Local Resources and Infrastructure

The nearest permanent buildings are at the northern end of Braeburn Lake just off the Klondike Highway. There are about 10-12 year-round and/or seasonal residential homes in the area. Braeburn Lodge is at Mile 55 of the Dawson Highway but now only comprises of a store and a seasonal restaurant. At Braeburn Lodge there is also a 3000 foot airstrip which runs immediately adjacent to the Dawson Highway. The Whitehorse-Aishihik-Faro electrical transmission line parallels the Klondike Highway, 20 kilometers east of the main historic coal reserves.

Being only 85 kilometers from Whitehorse, the project benefits from the infrastructure of the capital city of Yukon. Whitehorse has an international airport, it is the primary center for government and all of the regulatory agencies are also headquartered in Whitehorse, most of the First Nations have offices in Whitehorse or in the nearby communities, and the city also has numerous equipment and supplies stores. The city has a vibrant population of over 28,000 persons.

Yukon College is headquartered in Whitehorse. The college has established the Centre for Northern Innovation in Mining (CNIM) that develops and delivers innovative and flexible employment and career training to suit the labour needs of Yukon's mining sector. Its facilities are state-of-the-art and include mobile classrooms and are designed to help grow and improve the competitiveness of Yukon's mining sector and its environmental sustainability. Whitehorse also has a large base of consultants and specialists with expertise in environmental, engineering, mine planning, geology, and construction and also a work force that is experienced in all aspects of exploration, mine development and operations.

5.4 Climate

The area has a continental climate with low levels of precipitation and a wide temperature range. Temperatures range from – 40C in the winter to 30C in the summer. Summers are typically pleasant with extended daylight hours whereas winters are long and cold. Lakes in the area are suitable for floatplane use during the ice-free period of early June to late September. Explorations programs are usually conducted between late-May and mid-October but winter drill programs have been conducted on the property to take advantage of easier access over frozen ground which also limits the environmental impact associated with construction of temporary drill access roads.

6 History

6.1 Summary of Exploration Activity at the Division Mountain Project by Various Companies

It is important to note that the previously estimated mineral resources and mineral reserves discussed below are all considered to be historical in nature. A qualified person has not done sufficient work to classify the historical estimates as current resources or reserves under NI 43-101 and Yukoterre is not treating the historical estimates as current. The historical resources and reserves therefore cannot be construed in any manner as to ascertain the potential economic viability of the Division Mountain coal deposit. For clarity, there are no current NI 43-101 mineral resource or mineral reserve estimates on the Division Mountain property.

There has been over a century of exploration activity in the Division Mountain area (see Summary of Exploration Activity, Table 6.1). In 1903, John Quinn and H.E. Porter staked coal near Division Mountain. In 1907, D. Cairnes of the Geological Survey of Canada mapped and sampled three coal seams in Teslin Creek Canyon, 2 kilometers north of Division Mountain. An additional coal occurrence was located by Cairnes near the base of Red Ridge approximately 5 kilometers northwest of the Teslin Creek showings (Figure 6.1).

No exploration was carried out on the showings until 1970 when Arjay Kirker Resources Ltd. (for Teslin Exploration Ltd.) excavated seven bulldozer pits near the Teslin Creek coal outcrop. Eight seams were exposed ranging in thickness from 0.6 to 4.4 meters. A 1,047 meter, six-hole diamond drill program, also conducted in the Teslin Creek area by Arjay Kirker in 1972, outlined a historical geological resource of 2.5 Mt. Also in 1970, Norman H. Ursel Associates Ltd. conducted geological mapping of the Cub Mountain area. Teslin Exploration Ltd. also conducted exploration and drilling of coal seams north of Carmacks in 1971. Proximate analysis was conducted on samples in 1972. However in 1974, a decision by the Government of Canada to proceed with construction of the Aishihik hydroelectric project resulted in termination of coal exploration at Division Mountain by Teslin Exploration Ltd.

In 1975, Allen Resource Consultants Ltd. (Resourcex Ltd.) located coal float on Cub Mountain in gopher holes (Allen, 1975).

In 1991, the Geological Survey of Canada (“GSC”) carried out detailed analysis of coal samples including petrological and geochemical studies on samples obtained from some of the trench sites still exposed from previous exploration efforts.

As a result of the GSC survey, the W4 Joint Venture was then encouraged to explore for coal in the area and completed a minor trenching and short hole (2 holes) program at Division Mountain.

Table 6.1 *An outline of exploration activity in the Division Mountain area.*

Date	Exploration company	Work performed and highlights	Reference
1903	John Quinn and H.E. porter	• staked coal near Division Mountain	Yukon Minfile (1997)
1970	Norman H, Ursel Associates Ltd.	• Cub Mountain area; geological mapping, no coal found (NW corner of NTS block 105E/5)	Hunt (1994)
1970, 1971	Arjay Kirker Resources Ltd. for Teslin Exploration Ltd.	• Division and Vowel mountains-bulldozer treching (7 trenches totalling 167 m near Teslin Creek), mapping, sampling and test I.P. survey ove coal outcrops near Teslin Creek • reconnaissance geological mapping, road building • estimated reserves at 41 million tons • exposed aggregate thickness of 18.6 m of coal over an interval approximately 305 m • explored Corduroy Mt, no coal located	Kirker (1971); Craig and Laporte (1972)
1972	Arjay Kirker Resources Ltd. (Archer, Cathro and Associates Ltd.)	• drilled 6 diamond drill holes in Teslin Creek area (totalling 1047 m) • coal seams intersected vary from 4.6 to 5.9 m • 24.8 m aggregate thickness of coal seams > 0.5 m • reserves calculated as 2.8 million tons	Phillips (1973)
1975	Allen Resource Consultants Ltd. (Resourcex Ltd.)	• located coal float on Cub Mountain in gopher holes, believed to be within the Tantalus formation	Allen (1975)
1977	Hill for Cyprus Anvil Mining Corp.	• collected coal samples for analysis	Hunt (1994)
1978	Hill for Utah Mines Ltd.	• collected coal samples for analysis	Hunt (1994)
1978	Manalta Coal Ltd.	failed to locate any additional coal seams	Hunt (1994)
1990-1991	All-North Resources Ltd. and W4 Join Venture	• trenching and mapping near Teslin Creek	Yukon Minfile (1992)
1990	Geological Survey of Canada	• one 1972 bulldozer trench was remapped and carefully sampled (Teslin Creek) for Beaton et al. report	Beaton et al, (1992)
1992	Beaton et al, (University of Western Ontario)	• petrography, geochemistry and utilisation potential of the Division Mountain coal occurrence (Cairnes Seam)	Beaton et al, (1992)
1993	Cash Resources Ltd. (Allister Peach Geo-Consulting Ltd.)	• drilled 16 holes totalling 1810 m near Teslin Creek • intersected over 28 coal seams > 0.5 m thick • total in situ reserves estimated at 11 139 920 tonnes • hand trenching at Red Ridge exposed 11.4 m coal	Peach (1993); Wengzynowski and Carne (1993, 1994)
1994-1995	Cash Resources Ltd. (Archer, Cathro and Associates Ltd.)	• 5.2 km of excavator trenching • 6034 m of HQ-size diamond drilling in 32 holes • aggregate coal thickness 10 to 32 metres • estimated open pit reserves of 31.7 million tonnes	Carne and Gish (1996)
1996-1997	Cash Resources Ltd. (Archer, Cathro and Associates Ltd.)	• 1667 m of HQ-size diamond drilling in 10 holes • 21 excavator trenches totalling 2695 m at Division and Corduroy mountains • hand trenches southwest of Cub Mountain • raw coal reserves estimated at 54.7 million tonnes	Burke (1998); Gish and Carne (1998)
1998	Cash Resources Ltd. (Archer, Cathro and Associates Ltd.)	• 1329 excavator trenching at Cub Mountain • property optio-ed to Usibello Coal Mine Inc.	Burke (1999)
1999	Cash Resources Ltd. (Archer, Cathro and Associates Ltd.)	• 1,869 m of RC drilling in 20 holes and 4 excavator trenches totalling 315 m at Division Mountain	

History Cont.

Date	Exploration company	Work performed and highlights	Reference
2000	Usibelli Coal Mine Inc.	• Released Property option for Division Mtn	
2001	Cash Minerals Ltd.	• Cash Resources Ltd. changes name to Cash Minerals Ltd.	SEDAR, 2011
2005	Cash Minerals Ltd.	• 866.6 m of diamond drill holes at Division Mtn. Norwest Corporation Ltd, contracted to complete An NI 43-101 Resource Estimate	SEDAR, 2005 Norwest, 2005
2006	Cash Minerals Ltd.	• SNC Lavatin Ltd complete a study on thermal power • Norwest complete geotechnical drill holes	SEDAR, 2006
2008	Cash Minerals Ltd.	• Norwest complete a prefeasibility study for Division Mtn that concludes coal exporting is not feasible but a mine mouth thermal power facility project is the most feasible development option Mcloskey Group Ltd. complete a market study on steam And PCI coals	SEDAR, 2008
2009	Cash Minerals Ltd.	• Changes in corporate management	SEDAR, 2009
2010	Pitchblack Resources Ltd.	• Cash Minerals Ltd. changes its name to Pitchblack Resources Ltd.	SEDAR, 2010
2013	Pitchblack Resources Ltd.	• Mines Online Inc. contracted to promote the Division Mtn. Property	SEDAR, 2013
2008-2017	Yukon Geological Survey	• Range of studies focus on the hydrocarbon an Cbm potential in the Whitehorse Trough and highlight the Division Mtn property and Five Fingers area as 2 of 3 areas Trough with significant potential to host hydrocarbon deposits	YGS publications
2017	2560344 Ontario Inc.	• Acquire the Division Mtn Property and related Exploration Licences	SEDAR, 2017

Sample testing was completed by Birkley Engineering (Canada) Ltd. of Calgary who reported that a trench sample provided a calorific value of 7500 kcal/kg, 0.3% Sulphur and 21.8% ash, of which the ash occurred as adventitious material and could therefore be removed by washing (Carne, 1992). They reported various coal seam intersections of between 4.7 and 12.1 meters (Carne, 1990, 1992) and test results of 31.3% Ash, 22% volatile matter, 45% fixed carbon, 0.5% Sulphur, and a calorific values ranging from 7130-7870 kcal/kg, and 2.5% moisture. Carne (1992) noted that the coal qualities being identified were comparable with thermal coal quality values in a range of coal deposits in British Columbia, Alberta and Alabama. Carne (1992) also concluded that the Division Mountain basin appeared to have good potential for coal bed methane (“CBM”). The coal was noted to have a high liptinite content (spores, cuticular plant matter, resins and waxes) and this coupled with the high volatile rank, suggested that the potential for significant CBM was high. Carne’s report further stated that depending

on the method of calculation, the CBM potential of the Division Mountain area ranged from 17.5 billion cubic meters to 75 billion cubic meters. Carne based his own estimates for CBM potential at that time using the Alberta Geological Survey Method of estimation which was calculated to be 13.5 cubic meters of gas per tonne of bituminous coal in seams greater than 0.5 meters thick, of which is half of the estimated volume considered to be recoverable. Carne (1992) concluded that further exploration should be conducted in the area, including proximate and ultimate analyses of coal seams, and testing of the coal for CBM potential.

In October 1992 Cash Resources Ltd. purchased four Territorial Coal Exploration Licenses from Strategic Metals Ltd, that included the Division Mountain coal occurrences. In addition Cash Resources applied for other coal licences extending northwards through the Whitehorse trough region to cover possible extensions of the same geological formations at Division. These licences included known coal showings and favorable stratigraphy extending to the north just past the Five Fingers area. During the 1993 field season, Cash Resources completed 16 drill holes totaling 1,810 meters that were designed to test the Teslin Creek area (Wengzynowski et al. 1994). This diamond drilling program defined four seams with an average raw coal aggregate thickness of 10 meters over a 1 kilometer strike length forming the eastern limb of the Cairnes Syncline. Measured near-surface historical resources were estimated at 2.6 Mt to a depth of 200 meters, confirming the Arjay Kirker historical estimate. Hand trenching at Red Ridge 5 kilometers to the north exposed a total thickness of 11.4 meters of raw coal in three seams and demonstrated lateral continuity of the coal measures.

An exploration program consisting of 5.9 kilometers of excavator trenching and 6,034 meters of HQ-size diamond drilling in 32 holes was also carried out by Cash Resources during 1994 and 1995 to explore a 5 kilometer long south-easterly extension of previously known coal-bearing strata along the limbs of a northerly- plunging syncline-anticline pair (Gish, 1995 and Gish, 1996) at Division Mountain. This work was successful in discovering a new area of coal deposition with thicker seams than the Teslin Creek area and a dramatically lower strip ratio.

All coal drill intersections greater than one meter thick were submitted for proximate analysis, with samples comprising of the entire seam core intersection, a standard practice at that time for coal testing procedures. In conjunction with the 1994 and 1995 drill campaign, environmental surveys, including biological and botanical inventories and water quality assessment, were carried out (Gish, 1995 and Gish, 1996). In addition, representative intersections of coal from the drill programs were composited for secondary tests such as grindability, washability, ash chemistry and Ultimate Analysis.

Exploration during 1997 consisted of 1,667 meters of HQ-size diamond drilling in ten holes and twenty-one excavator trenches totaling 2,695 meters on both Division Mountain and Corduroy Mountain (Gish et al, 1998). The diamond drilling focused on further delineating west-dipping coal-bearing strata discovered during the 1994-1995

exploration season.

Gish (1998) noted that the objective of the program was to increase the historical resources from approximately 30 million tonnes of coal to 50 million tonnes. The work resulted in more than 900 meters of strike length was added to the southwest coal deposits, while the average aggregate raw coal thickness increased to 24.7 meter. A short excavator trenching program was then conducted in early fall 1998 by Cash Resources (Gish, 1998). The work consisted of six excavator trenches totaling 1,329 meters and was designed to test favorable Tanglefoot Formation stratigraphy in the vicinity of Cub Mountain, approximately 4.5 kilometers northeast of Division Mountain. No significant coal seams were exposed in any of the trenches.

In November 1998 the Division Mountain property was optioned to Usibelli Coal Mine, Inc. (Usibelli) (Sedar, 1998b). Exploration in the spring of 1999 consisted of 20 reverse circulation percussion drill holes totaling 1,869 meters and 4 excavator trenches totaling 315 meters (Gish, 2000). The author located some of the holes that were proximal to the northern trail to Division Mountain. Usibelli's trenching and three of the drill holes were designed as a check of geologic data that formed the basis of a 1998 historic resource estimate that they published, but the bulk of the reverse circulation drilling was carried out to explore three target areas outside the defined deposit. The program confirmed the results of earlier drilling and outlined several new coal seams on Corduroy Mountain but ultimately Usibelli dropped its option on the property in May 1999 (Sedar, 1999).

On March 13, 2001 Cash Resources Ltd. announced a change of name to Cash Minerals Ltd.. (Sedar, 2001). Minimal exploration occurred between the period 2001-2005. Then in 2005, Cash Minerals Ltd. ("Cash") had renewed interest in the project and completed a total of four diamond drill holes (886.57 m) on the Division Mountain property. That same year, Norwest Corporation ("Norwest") of Salt Lake City, Utah, was contracted by Cash to complete an historical resource estimate supported by a technical report to NI 43-101 standards at the time. The results of the 2005 drilling program, a review of all previous assessment work, coal quality tests and a site visit were completed and a report entitled "*Geologic Evaluation and Resources Calculation on the Division Mountain Property, Yukon Territory, Canada*" was prepared by T. Becker and published on March 9, 2005.

Extensive trenching programs have been conducted at Division Mountain and had good success in delineating coal seams and prospective exploration areas.

1. The 1994 and 1995 excavator trenching programs utilized a Caterpillar 235 operated under contract by 10983 Yukon Ltd. of Whitehorse. The programs consisted of thirty (30) trenches totaling 5.9 kilometers in length and required 928 hours of excavator time
2. The 1997 excavator trenching program required 569 hours of Hitachi UH09 excavator time to complete twenty-one (21) trenches totaling 2,695 m in length. The excavator was operated under contract by 15317 Yukon Inc. of Whitehorse
3. Trenching in 1998 consisted of six trenches totaling 1,329 m completed with 116.5

hours of excavator time.

4. In 1999 four excavator trenches totaling 315 m were completed with a Caterpillar 235 excavator operated by Caron Diamond Drilling Ltd. of Whitehorse.
5. Limited geophysical surveys have been conducted with limited success in delineating coal seams.
6. In 1993 VLF-EM, EM-31 and total magnetic field surveys were conducted over 16.5 km on grid crosslines between 10+000N and 15+182N. The readings were taken at 10 m stations by Amerok Geophysics of Whitehorse, Yukon (Wengzynowski et al, 1994).
7. Geophysical surveys during the 1994 exploration program included 36.9 km of VLF-EM at 10 m intervals on 300 m lines spacing and 576 meters of reflection seismic surveys with a constant 4 meter geophone interval on selected VLF-EM lines (Gish, 1995). VLF-EM lines were run with 27.4 kilometers orientated at 130° and 9.5 kilometers orientated at 040°. The lines orientated at 130° were intended to test the eastern limb of the Division Mountain syncline while those orientated at 040° were used to better delineate the nose of the Cairnes syncline.

In the spring of 2005 Norwest was retained by Cash Resources Inc. to assist with ongoing exploration efforts and conduct a comprehensive reviews of all previous exploration efforts in order to complete an update of the historic resource estimations for the property. The assignment included a review by Norwest of all exploration procedures and results; compilation of regional and property-scale geological data and drill data from public sources, assessment reports and company reports. The results of the work were presented in a report titled **Geologic Evaluation and Resource Calculation on the Division Mountain Property, Yukon Territory, Canada (Becker, 2005)**.

Upon completion of the 2005 exploration program Norwest was then further asked to continue a range of geological, geotechnical and preliminary engineering studies to further advance the project. This initially resulted in the reporting of a Scoping Study in 2006 which was then further upgraded with additional geotechnical, geological, engineering and exploration drilling to complete a feasibility study in 2008. The author responsible for the preparation of the feasibility study was involved in a range of activities at the site and supervised a majority of the work efforts. He was also previously involved in the exploration programs conducted in the fall of 1994, spring of 1995 and visited the property on July 5 and 6, 2005. All of these study efforts by Norwest were completed for Cash Minerals Ltd., they are considered to be reliable by the author, but are also considered to be historical in nature, and do not demonstrate any potential viability of the Division Mountain Coal Deposit.

The estimation methodology by Norwest in deriving historical resource estimates in 2005 and 2006 approximated that used in 1998 by Mr. R.C. Carne, M.Sc., P.Ge and by Gish (2000) in earlier reports. The details of the historical resource and reserve estimation methodology are presented in the internal compilation report.

This initial report by Norwest was followed up with a series of reports between 2006-2008 including:

- Norwest Corporation., 2008. **NI 43-101 Technical Report on Coal Resources and Reserves of the Division Mountain Property, Yukon Territory.**
- Norwest Corporation., 2008. **Division Mountain Project Pre-Feasibility Study** for Cash Minerals Ltd.
- SNC-LAVALIN Thermal Power, 2006 **Division Mountain Power Project** for Cash Minerals Ltd.
- The McCloskey Group, Ltd., 2008. **The Markets for Division Mountain Steam and PCI coals** for Cash Minerals Ltd.

In the Norwest Corporation., 2008 report entitled “**NI 43-101 Technical Report on Coal Resources and Reserves of the Division Mountain Property, Yukon Territory.**” Norwest concluded that the drilling program to that date had been very successful in delineating the coal deposit at Division Mountain.

Norwest in 2008 based their historical resource estimates at that time on exploration programs, analysis of results, and their own modelling efforts and this work also included a compilation and comprehensive the results of all previous exploration efforts conducted by Archer Cathro & Associates (See Carne, 1995, 1996, 1998, 1999; Gish 1999, 2000). For the classification, estimation and reporting of the historic coal resources for the Division Mountain property by Norwest (2005, 2006, 2008) were developed in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum’s CIM “Definition Standards on Mineral Resources and Reserves” adopted by CIM Council on November 14, 2004 and they also referenced the Geological Survey of Canada Paper 88- 21 “A Standardized Coal Resource/Reserve Reporting System for Canada” (Hughes, et al, 1989). All historical resources fell into the Measured category based on the criteria provided in GSC Paper 88-21 and the results of the 2005 and 2006 drilling efforts which indicated that seam continuity and geological correlations could be made for distances of over 500 meters (Norwest 2008).

A total near-surface historical “Measured” resource of 52.5 Mt was defined (Table 6.2) by Norwest (2005, 2006, and 2008). Approximately 47.2 Mt of the historic resource were noted to occur within the area covered by the five coal leases while 5.3 Mt occurred just to the southeast of Lease CMW3003 on section line 8+950N (covered by Coal License CYW0156).

TABLE 6.2 Historic Coal Resource Summary

Resource Area	ASTM Coal Rank	In-Place Resources (Tonnes In Millions)		
		Measured	Indicated	Inferred
Division Mt.	High Volatile Bituminous B	52.493	0	0
Total		52.493		0

The Norwest (2008) report also included an historical estimate 26.4 Mt of in-place coal reserves, in the Proven assurance category (see Table 6.3)

TABLE 6.3 Historic Coal Reserve Summary

Area	ASTM Coal Rank	In-Place Reserves (Tonnes in Millions)	
		Proven	Probable
Division Mt.	High Volatile Bituminous B	26.372	0
Total		26.372	

Norwest also provided within this study a summary of the historic resource estimated by both section and by seams. They noted that further geological investigations and possibly drilling was required to explore potential areas for extension of the deposit to the southwest and unexplored areas to the west.

In the same year, as previously noted Norwest completed a study entitled: “Norwest Corporation., 2008. **Division Mountain Project Pre-Feasibility Study** for Cash Minerals Ltd. This pre-feasibility study was based on the coal being surface-mined using conventional truck/shovel practices. It was envisioned that there would be a run-of-mine product that will be sold as fuel for a local “mine mouth” 50MW (net) generating station that would be operated as an independent entity.

The report was quite detailed and provided information on:

- Geotechnical analysis
- Surface mine design including pit optimization, selection of mining method, equipment selection, mine plan overview, volumetrics, mine access and haul roads, labor and work schedule, environmental and mine permitting
- Mine Infrastructure including coal handling facilities and shop/office facilities
- Estimates on Operating and Capital Costs
- Project Economics

Considering that this report was prepared in 2008, any data on cost estimates and project economics can no longer be relied upon. Furthermore as a new property owner, Yukoterre would need to conduct its own independent analysis to verify the other information presented in the 2008 Norwest Prefeasibility Report. However the work conducted provides an excellent base of knowledge and therefore is considered to be a significant contribution to the database associated with the historical work completed by various parties, such as Norwest, relating to the Division Mountain Coal Project.

Various changes in management of the company then occurred and on June 24, 2010 Cash announced a name change to that of Pitchblack Resources Inc. (“PIT”) who then completed a share consolidation. The author was then contracted by PIT and conducted two visits to the property in 2009 and 2011 to update the management on the status of the property, examine the condition of core storage at site, and to locate former diamond drill-hole locations. A majority of the former drill-hole locations were verified and located at their prescribed locations. Whole core of coal samples were found to have been removed from the drill core located at site. The logs appeared to be accurate

for the non-coal portions in a representative number of holes inspected but due to the removal of whole coal core samples the author was unable to verify any of the coal data. The coal is stored outside and is not under cover and its condition will likely depreciate rapidly over time. In 2013, PIT contracted Mines Online Inc. to undertake promotional efforts to sell the property and the author assisted them in the preparation of those materials.

Recently the Yukon Geological Survey has been actively studying the hydrocarbon and coal bed methane potential of the Whitehorse Trough (YGS Open File 2015-23; Lowey et al, 2008 and 2009; Beaton et al, 1992; Hayes et al, 2012; White et. al, 2012, Hutchison, 2017). These reports noted that the Whitehorse Trough is a frontier intermontane basin that is prospective for oil and gas from both conventional and unconventional reservoirs in nine possible plays. All nine plays were deemed prospective for gas and three were deemed to have potential for oil as well. They further highlighted three areas with the greatest potential for hydrocarbon resources which included the Division Mountain area covered by the coal exploration licence areas held by Yukoterre. The studies have concluded that the evidence for the presence of both conventional and unconventional hydrocarbons in the Whitehorse trough is compelling and assessed volumes are sufficiently substantial to support additional exploration and assessment work (Hayes et. al, 2012).

6.2 Summary of Coal Exploration Drilling - Division Mountain

A total of 68 diamond drill holes (11,441.57 meters), 20 reverse circulation percussion drill holes (1,869 meters, and 4 rotary air blast (RAB) drill holes), along with numerous trenches have been completed on the property. Geology and drill hole locations in the area of detailed exploration are shown on Figure 2.1 and cross sections through the coal measures are included within the internal compilation report.

All 68 of the diamond drill holes and three of the reverse circulation percussion drill holes were drilled in a 6.5 kilometer long by 1.5 kilometer wide southeast trending area. Seventeen of the reverse circulation percussion drill holes explored three target areas outside the defined deposit.

The 1993, 1994, 1995 and 1997 diamond drilling programs were contracted to E. Caron Diamond Drilling of Whitehorse. The drilling was done with one or two skid-mounted Longyear 38 wire-line equipped drills. All holes were drilled with HQ (6.25 cm diameter) equipment however, badly broken ground necessitated reducing to NQ (4.75 cm diameter) equipment in some holes. Core recovery of the coal intersections averaged about 96%.

Reverse circulation percussion drilling in 1999 was carried out by Midnight Sun Drilling Co. Ltd. using a track-mounted Schramm T6585WS drill supported with a Clark skidder.

Down-hole geophysical logging was performed in 1999 on all reverse circulation drill holes by Amerok Geoscience Ltd. of Whitehorse, Yukon (Gish, 2000). Resistivity was measured using an IFG BMP-04 galvanic resistivity tool, with 16 inch and 48 inch electrode spacing. Natural radioactivity was quantified with an IFG BSG-01 four channel gamma probe with windows in the 100 KeV to 3 MeV range. Measurement time was constant at one second. The results of these surveys were inconclusive and failed to accurately define the coal seams.

In 2005 a total of four diamond drill holes (886.57 meters) were completed on the property. Diamond drilling and bulldozer support was contracted to E. Caron Diamond Drilling of Whitehorse. The drilling was done with one skid-mounted Val d'Or wire-line equipped drill and a D7E bulldozer for drill pad construction and drill moves. Holes 05-85, 05-86 and 05-87 were completed with standard HQ equipment while the bottom of holes 05-87 and all of 05-88 were drilled with HQ3 bits and a split core tube.

PVC tubing with an inside diameter of 5.08 cm was inserted into drill holes 05-86, 05-87 and 05-88. For each of these holes electrical heat tape was suspended inside the PVC tubing from surface to a depth of 60 meters. The completion of these drill holes with PVC tubing and heat tape enabled the permafrost to be thawed in the holes when required.

Aurora Geosciences Ltd. of Whitehorse, Yukon was retained to perform down-hole geophysical logging. They attempted to record natural gamma, self-potential (SP) and resistivity logs in hole 05-85 but due to excessive caving they were not able to log this hole and abandoned any additional surveys. Roke Oil Enterprises Ltd. of Calgary, Alberta was then asked to perform additional logging. Roke arrived on the property as the final hole of the 2005 program was completed. Roke was unable to perform SP and resistivity surveys since the logging sonde was damaged in transit. They were able to logs holes 05-86, 05-87 and 05-88 with gamma ray, neutron and electron bulk density equipment. For each of these holes the HQ rods were lowered to the bottom of the hole then logging was performed through the rods. The rods were then pulled from the hole and the holes logged with a caliper sonde. The results were plotted on strip logs and provided in digital format.

The 2005 drilling program provided large diameter drill core that was used for geotechnical studies. The geotechnical logging of all drill holes was performed by Archer Cathro and Associates (1981) Limited personnel under instructions and supervision by EBA Engineering Consultants Ltd. of Whitehorse, Yukon.

All drill holes were marked with a 1.5 meter long wooden plug, bearing an aluminum tag inscribed with hole number, date drilled, azimuth, dip and total depth. Surface inclination of the diamond drill holes was determined using a Brunton compass with downhole inclination determined by acid tests. Results from the downhole surveys showed little or no change from surface inclinations.

6.3 Coal Exploration Drilling - Division Mountain Area

6.3.1 Hull Mountain

In 2006 the Hull Mountain area was selected as a target for reverse circulation drilling to assess whether the relatively abundant and thick coal seams of Division Mountain continue beneath Klusha Creek Valley. A track-mounted percussion drill was used. Three holes were attempted but none were completed through the overburden that exceeded 20 meters in thickness. Notwithstanding, further exploration in the form of geological mapping and excavator trenching is warranted on the northwest slope of Hull Mountain where depths may be thinner (Carne, 2006) and/or a return to the proposed original drill sites with a more robust drill.

6.3.2 Cub Mountain

In 1999 an exploration program was funded and managed by Usibelli Coal Mine Inc. under an option agreement from Cash Resources Ltd. Seven holes (99-78 to 99-84) were drilled just north of Cub Mountain and a total of 77 meters of trenching in four locations was conducted (Gish, 2000).

In 2006, four (4) holes totaling 581.5 meters of reverse circulation drilling were completed along the Division Mountain north access road in the Cub Mountain area. The holes were designed to explore the Upper Member of the Tanglefoot Formation for coal (Carne, 2006). Coal float was noted to occur nearby the drill sites (Carne, 2006). Recovery of drill cuttings was poor in softer lithologies, especially below the water table and consequently no uncontaminated samples were available for coal quality analyses. The only significant intersection was a 1.6 meter coal seam with low to moderate apparent ash content. It was thought that the seams in this area were thin and were part of the upper portion of the Tanglefoot Formation Upper Member while better coal intersections in Division Mountain for at the base of the Tanglefoot Formation Upper Member (Carne, 2006). Further exploration was deemed not to be warranted at that time by Carne (2006). Possible targets in this area in further exploration would have to consider possible locales where the lower portion of the Upper Tanglefoot Formation Upper Member may be at or near the surface.

6.3.3 Corduroy Mountain

In a letter from Usibelli to Cash Resources in 1999, Usibelli noted that they also conducted three drill holes in Corduroy Mountain all of which encountered coal (Gish, 2000). Unfortunately the drill logs were poorly recorded with no specific locations of the drill holes and so these locations are unknown. However, they do indicate that further exploration in Corduroy Mountain may be warranted.

6.4 Geotechnical Drilling at Division Mountain

In July, 2005, four diamond drill holes were drilled and sampled as part of an exploration program at the Division Mountain site.

Norwest Corporation was engaged by Cash Minerals to provide stability analysis and pit wall recommendations for geotechnical data obtained in this program.

Drilling/logging/sampling were supervised by Archer-Cathro Consultants site geologists with onsite assistance from EBA Engineering from Whitehorse and technical support and review from Norwest.

Development of pit wall angles required the identification of potential failure modes for the given pit configurations. Primary failure modes were evaluated individually to identify failure potential (Norwest, 2006). The failure modes of concern for a pit in bedded geology such as Division Mountain were described and are included in the internal compilation report.

7 Geological Setting and Mineralization

This section describes regional geology, stratigraphy and structural geology of the Division Mountain property.

7.1 Regional Geology

The Division Mountain area lies within Whitehorse Trough, a northwest-trending, fore-arc basin comprised of Mesozoic volcanic and sedimentary rocks (See Figure 7.1). The Whitehorse Trough constitutes the northern end of the Intermontane Belt of the Canadian Cordillera. The Whitehorse Trough sequences are bounded by the Omineca Crystalline Belt to the east and the Coast Plutonic Complex to the west. The Division Mountain terranes are bounded by the Braeburn Fault to the north and the Miners Fault to the south. Yukon Crystalline Terrane comprises both Paleozoic igneous and sedimentary rocks as well as their metamorphosed equivalents. The Whitehorse Trough contains the coal-bearing strata currently under exploration.

During Late Triassic time an island arc assemblage consisting of a 7,000 meter thick succession of Lewes River Group aphyric to augite-phyric basaltic andesite flows, breccias and tuff, conglomerate, wacke, limestone and shale was deposited within Whitehorse Trough. Succeeding Jurassic basin-fill stratigraphy is more complex due to disconformities and hiatus in sedimentation and to diachronous or inter-fingering relationships in the shallow water and nearshore facies. In general, two sequences are present: Lower to Upper Jurassic conglomerate and sandstone turbidites of the marine to deltaic Laberge Group; and, Upper Jurassic to Cretaceous conglomerate, sandstone, mudstone and coal of the largely alluvial Tantalus Formation.

7.2 Stratigraphy

Generalized geology of the Division Mountain area is given in Figures 7.2 and 7.5. A stratigraphic representation of the Whitehorse Trough is presented in Figure 7.3 (after Hart, 1997). Detailed geology of the main area of exploration along with Section locations is shown in Figure 2.1.

Whitehorse Trough stratigraphy can be divided using major bounding disconformities between distinct sedimentary sequences deposited along the basin margins. These sequences are the Lewes River Group shallow marine carbonate and clastic rocks; Laberge Group conglomerate and sandstone turbidites; and the Tantalus Formation, a largely alluvial package of chert pebble conglomerate, sandstone, shale and coal.

The Lewes River Group represents to oldest stratigraphy within the Trough consisting of Upper Triassic to Jurassic volcanoclastic conglomerates overlain by alternating lenses of greywacke and limestone.

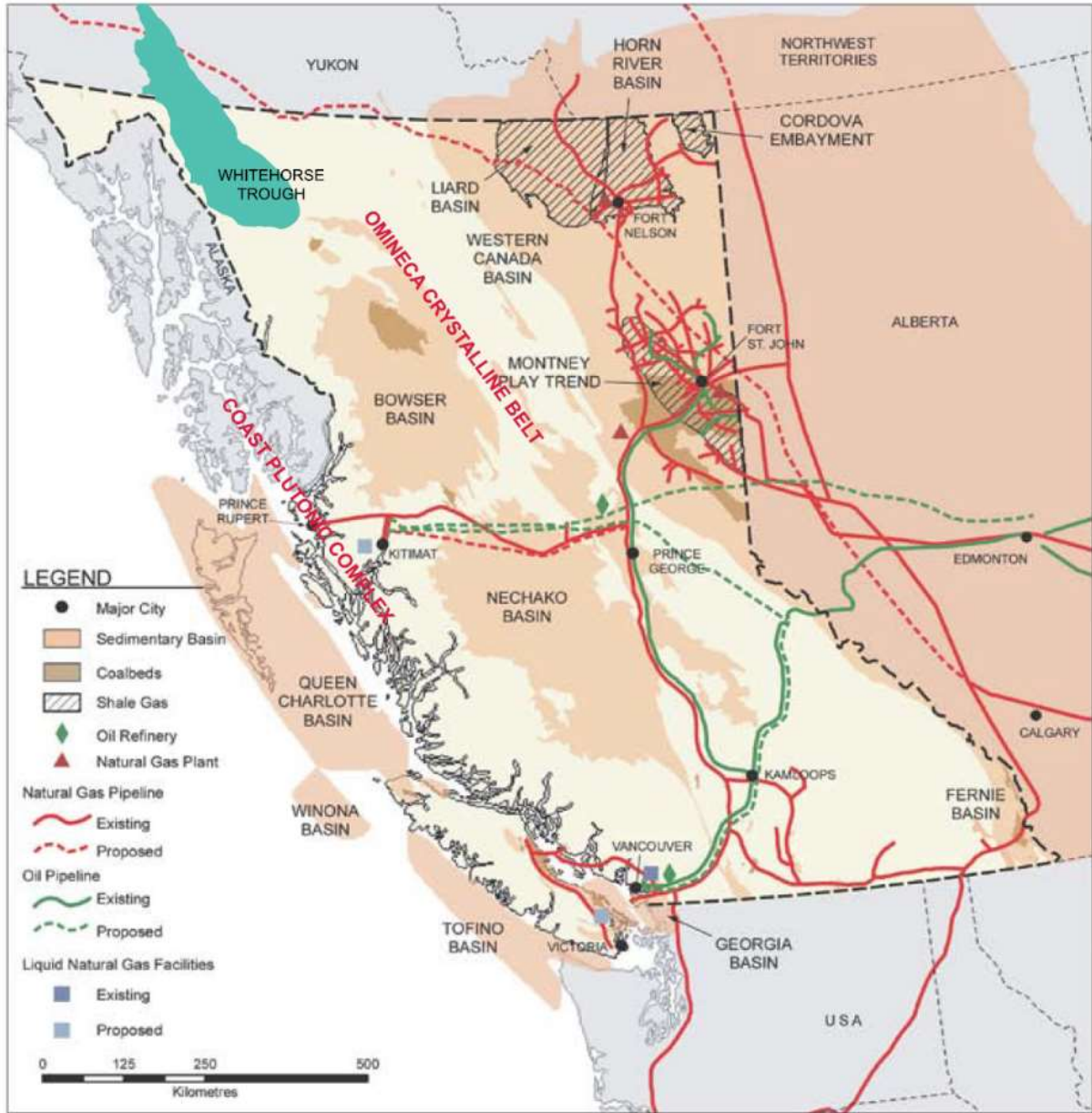


FIGURE 7.1

2560344 Ontario Inc.
**MAP OF WESTERN CANADA
CORDILLERA, SHOWING LOCATION
OF WHITEHORSE TROUGH
AFTER YGS. MR6**

DATE: 01/05/2017	K. Brewer P.Geo.
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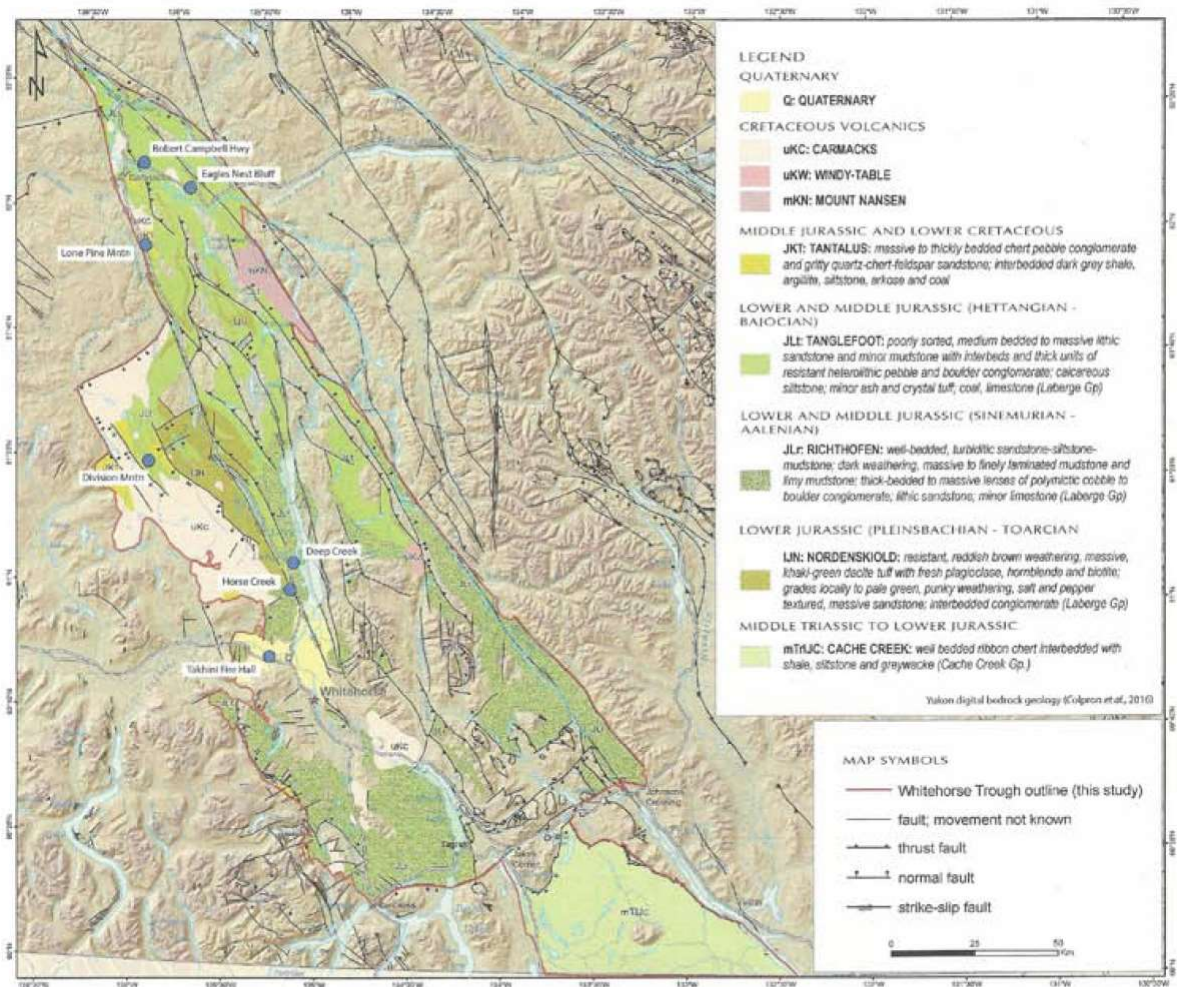


FIGURE 7.2

2560344 Ontario Inc.
**GENERALIZED GEOLOGY OF THE
 WHITEHORSE TROUGH AFTER
 COLPRON, 2011**

DATE: 01/05/2017 K. Brewer P.Geo.

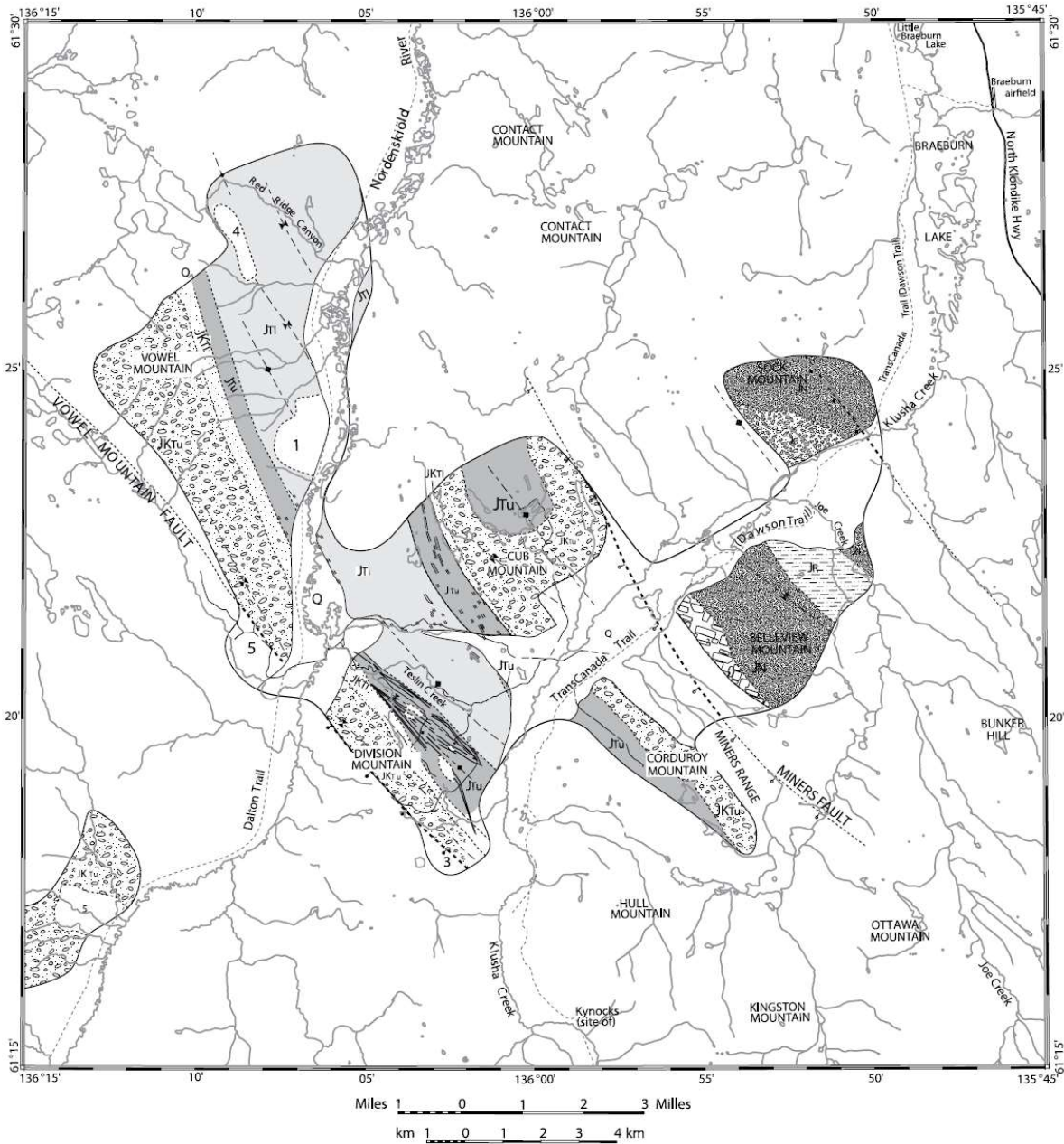


FIGURE 7.3

2560344 Ontario Inc.
GEOLOGICAL MAP OF THE
DIVISION MOUNTAIN AREA
AFTER ALLEN (2000)

DATE: 01/05/2017	K. Brewer P.Geo.
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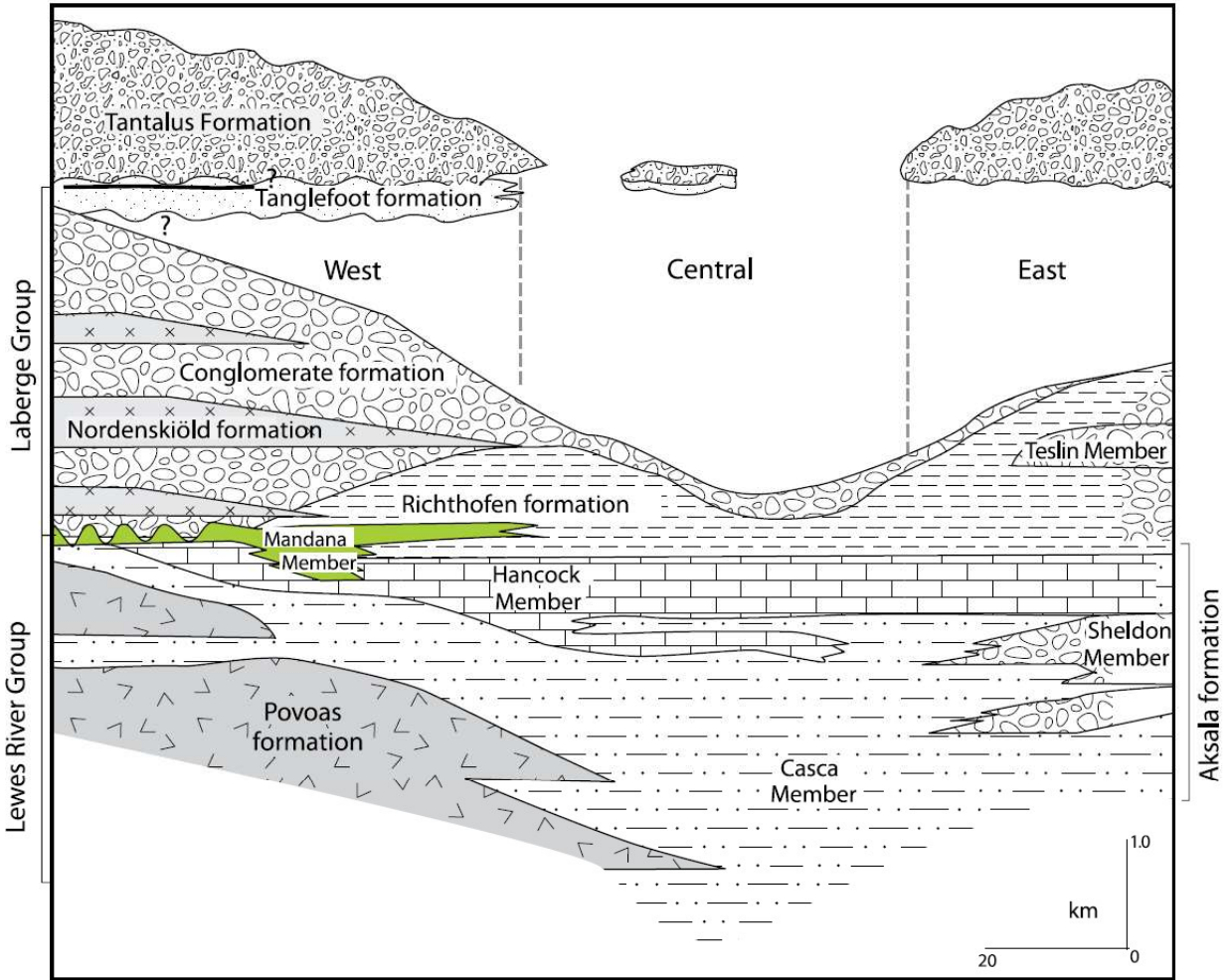


FIGURE 7.4	
2560344 Ontario Inc. STRATIGRAPHIC REPRESENTATION OF THE WHITEHORSE TROUGH (After Hart, 1999)	
DATE: 01/05/2017	K. Brewer P.Geol.

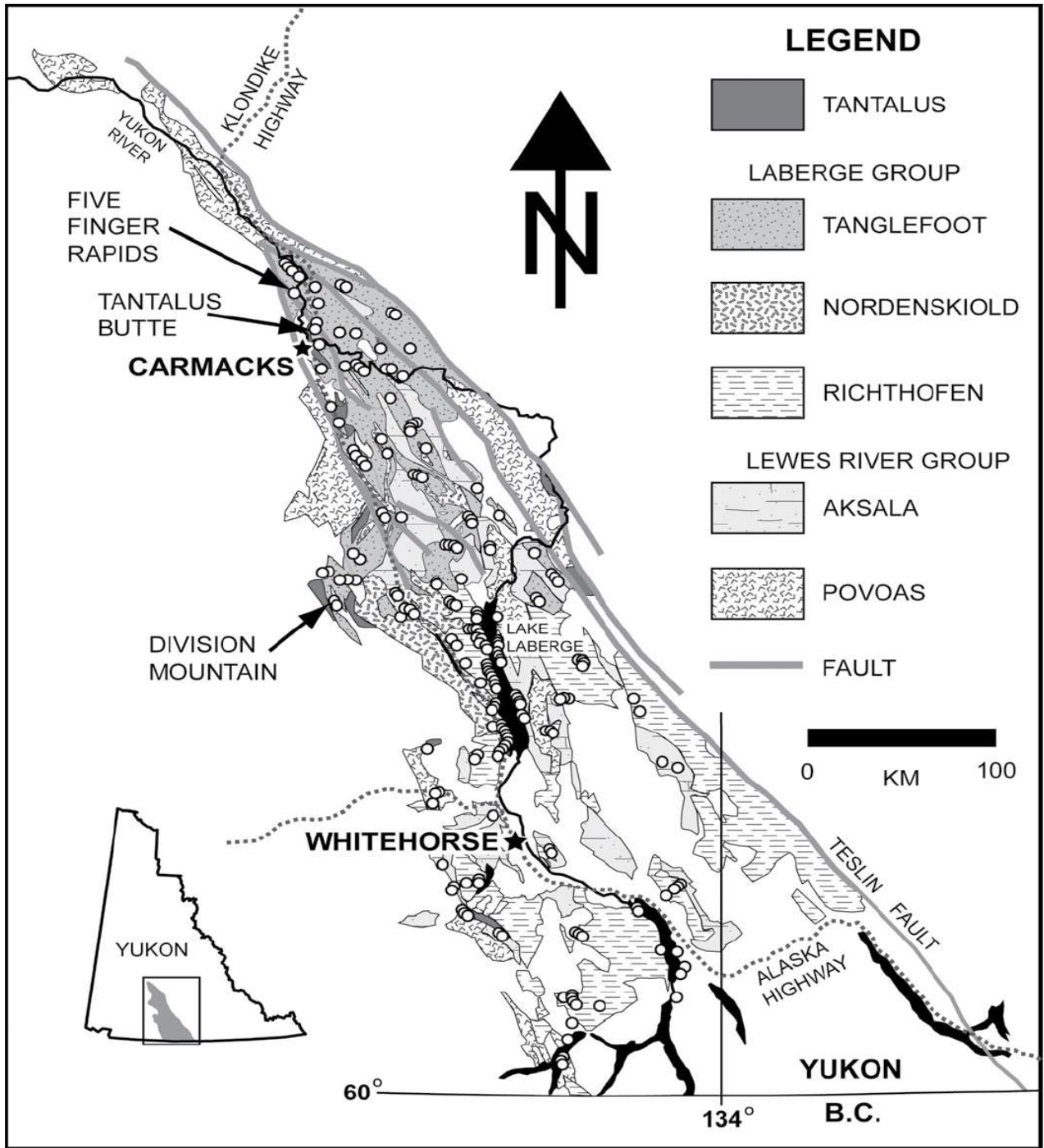
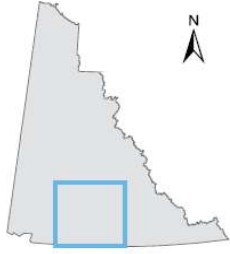
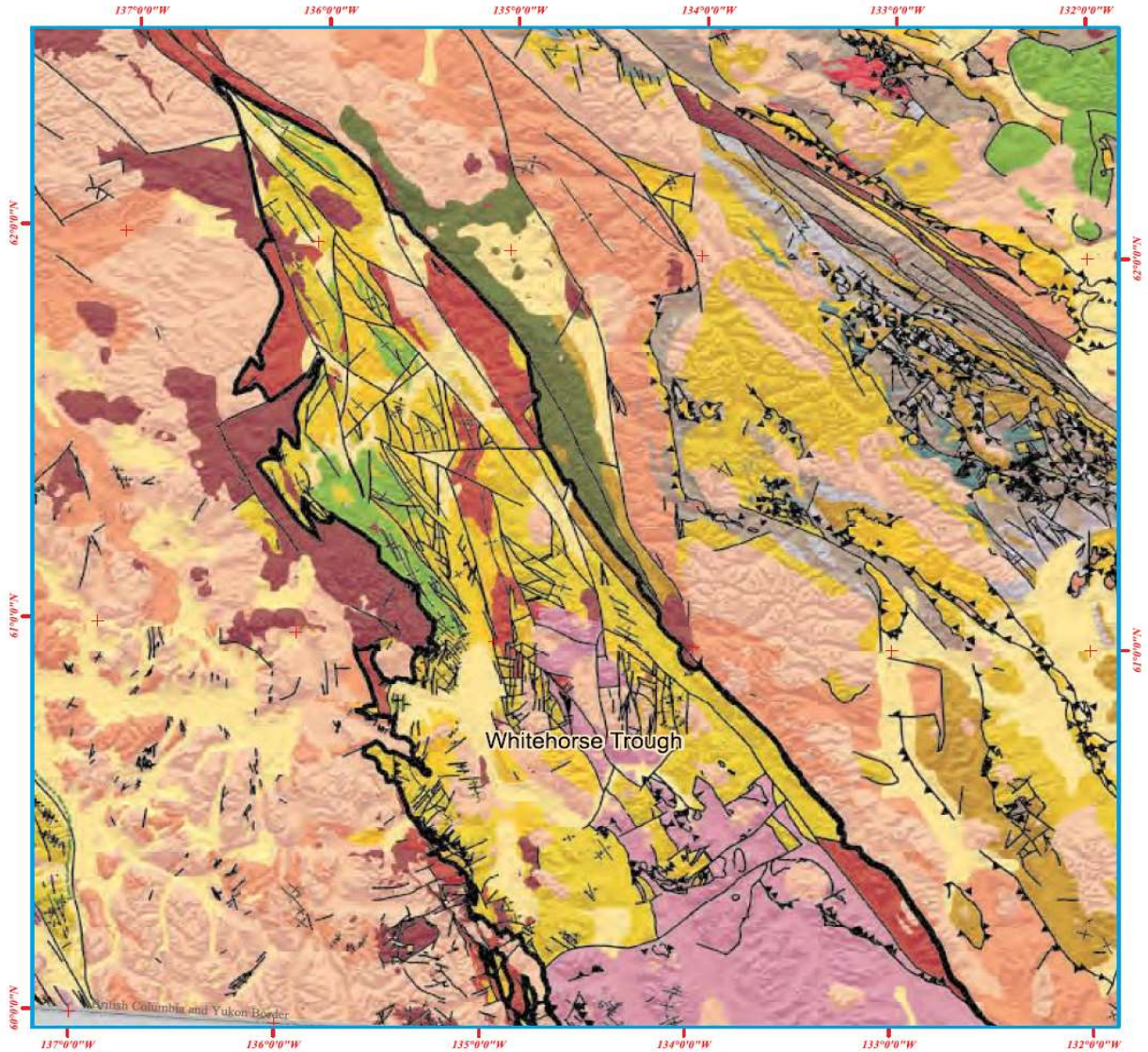


FIGURE 7.5
 2560344 Ontario Inc.
 GENERAL GEOLOGY MAP OF
 WHITEHORSE TROUGH YUKON
 (After Colpron et. al. 2000)
 DATE: 01/05/2017 | K. Brewer P.Geo.



- Oil Well
- ☼ Gas Well
- ☼ Oil and Gas Well
- Dry and Abandoned Well
- ◆ Condensate, Water; Unknown
- ▭ National Park
- ▭ Territorial Park
- ▭ Exploration Licence
- ▭ Permit
- ▭ Production Lease
- ▭ Significant Discovery Licence
- Faults
- Folds
- Oil and Gas Seismic Lines
- ▭ Exploration Regions

Bedrock Geology

- Quaternary**
 - unconsolidated glacial, alluvial, colluvial deposits
- Late Cretaceous - Tertiary**
 - foredeep shale and sandstone
 - volcanic rocks
- Cretaceous**
 - foredeep shale and sandstone
- Jurassic - Cretaceous**
 - shale, interbedded sandstone and conglomerate
 - volcanic rocks
- Triassic**
 - shale, sandstone, limestone
 - volcanic rocks
- Permian**
 - shale, sandstone, conglomerate, chert
 - volcanic rocks

- Devonian - Carboniferous**
 - limestone
 - shale, sandstone, conglomerate
 - volcanic rocks
- Cambrian - Devonian**
 - platform carbonate, siltstone, sandstone
 - basinal shale, siltstone, sandstone
 - volcanic rocks
- Lower Cambrian**
 - carbonate
 - shale, siltstone, sandstone
- Proterozoic - Tertiary**
 - metasedimentary and siliciclastic rocks, volcanic rocks
 - undifferentiated intrusions

FIGURE 7.6

2560344 Ontario Inc.
STRUCTURAL GEOLOGY MAP
OF THE WHITEHORSE
TROUGH (EMR,2011)

DATE: 01/05/2017 K. Brewer P.Geo.

The Laberge Group is subdivided into the following formations: (i) Conglomerate Formation, Hettangian to Bajocian in age, and consisting of polymitic cobble-boulder conglomerates dominated by granitic to granodioritic clasts; (ii) Richtofen Formation, Hettangian to Bajocian in age, and consisting of interlaminated black shale and wispy silt to fine sandstone laminae; and (iii) the Nordenskiöld Dacite, of Sinemurian to Toarcian age, and consisting of thick epiclastic and primary dacite tuffs and flows.

In the Division Mountain area, the stratigraphy encountered within the coal measure is comprised of three distinctive lithologies; coal bearing strata within the Tanglefoot Formation; the underlying Richtofen Formation; and intrusive andesite bodies (Gish, 1995).

7.2.1 Tanglefoot Formation

The Tanglefoot Formation is the main coal-bearing unit on the property and occurs as fining-upward cycles of sub-rounded, clast-supported quartz granule conglomerate, brown coarse-grained sandstone and chocolate brown siltstone that often contains plant fossils; and black shale, coaly shale, shaly coal and coal (Gish, 1995). Contacts vary from gradational over several meters to sharp.

Thicknesses of all of the constituents of an individual cycle and the number of cycles encountered per drill section vary greatly (Gish, 1995). Often a unit of grey arkosic sandstone with 2 to 8 mm angular rip-up clasts of coaly shale and/or shale lies between the lower contact of the earliest coal-bearing cycle and the Richtofen Formation (Gish, 1995).

A section measured at Red Ridge consists of fifteen sedimentary cycles, each on the order of approximately 10 meters thick. A typical cycle consists of:

- 9 A scour-based arkosic pebble conglomerate containing fossils, twigs and branches lying transverse to paleoflow along 1 to 2 meter trough foresets;
- 10 Conglomerate lags infilling troughs as lenticular beds;
- 11 A fining-upward zone of medium- to fine-grained arkose containing trough cross-beds, which exhibit an upward decrease in set size;
- 12 Grey organic rich shale or shaly mudstone containing leaves, grasses and *Metasequoia* needles and twigs;
- 13 Coaly shale to shaly coal, commonly rich in coalified twigs and branches;
- 14 Banded coal; and,
- 15 Either a transition back to grey shale or an abrupt termination by the basal pebbly conglomerate bed of the next cycle.

The depositional environment was one of a broad coastal zone characterized by tidal marshes and high-constructive river-dominated deltas (Lowey, 2008), rapidly aggrading flood-dominated delta. Cross-bedded conglomerate-sandstone cycles represent point-bar deposits from a high energy fluvial system. Paleo-current variance supports a meandering river interpretation. Of particular interest is that, despite the

generally coarse-grained nature of the channel sandstones and conglomerates, the overbank deposits and related coals are relatively thick and demonstrate remarkable lateral continuity.

The coal seams were deposited in long-lived delta plain swamps that served as collection sites for transported organic material and for generation of peat bogs. Closer to the Tanglefoot-Tantalus contact, coal becomes less abundant. Instead, grey shale and coaly shale predominates as much thinner beds than the coal seams lower in the succession.

Trenching in the vicinity of Cub Mountain and Corduroy Mountain exposed northeast-dipping coal and Tanglefoot Formation stratigraphy. This is probably a fold repeat of the coal-bearing Division Mountain and Cairnes Syncline Tanglefoot Formation sequences.

Resistant beds of thick-bedded chert pebble conglomerate of the Upper Jurassic to Lower Cretaceous Tantalus Formation cap the Tanglefoot Formation coal-bearing sequence, forming prominent topographic highs at Division Mountain, Red Ridge and Corduroy Mountain. Depositional environment of the Tantalus Formation appears to be one of an active flood plain. Coal has previously been mined within the Tantalus conglomerates 100 kilometers to the north of Division Mountain in the Carmacks region. Coal float has been found in the vicinity of gopher holes in areas underlain by the Tantalus Formation at Division Mountain and Red Ridge but to date none has been found in bedrock.

7.2.2 Richtofen Formation

The lithologically distinctive Richtofen Formation serves as an easily recognizable base for the overlying coal measures (Gish, 1995). Brown weathering black mudstone, with wispy siltstone to fine sandstone laminae in the form of low amplitude cross-stratification, alternates with thick (>10 meter) intervals of massive brown weathering calcareous sandstone. Fossil gastropods were found in the Richtofen Formation in diamond drill hole 94-38 (Gish, 1995). However these are not considered index fossils and cannot therefore be used for accurate dating (Gish, 1995). A Lower to Middle Jurassic depositional span is recorded elsewhere in Whitehorse Trough for the unit but since this sequence is likely diachronous, being a record of a nearshore facies that migrated with basin fill, the precise age of the Richtofen Formation in this area will remain unknown until it can be locally constrained by paleontological data.

7.2.3 Andesite

Small stocks, dykes and sills of porphyritic basalt, andesite and dacite intrude the Tanglefoot Formation coal measures. This intermediate to mafic altered andesite to basalt sequence, of likely intrusive origin, appears for the most part to be sill-like bodies conformable with the Tanglefoot and Richtofen stratigraphy although they do on

occasion crosscut the formations (Gish, 1995). The presence of glassy chill zones and rare amygdaloidal textures are indicative of emplacement in a near-surface setting (Norwest, 2008). Colours vary from pale green to dark green. Carbonate veins, veinlets and stringers are common throughout (Gish, 1995). Composition is primarily cryptocrystalline clay and/or plagioclase, carbonate, augite and quartz (Gish, 1995). Age of the intrusions is unknown but they are probably related to regionally extensive volcanic rocks of the Upper Cretaceous Carmacks Group, which unconformably overlie the Laberge and Tantalus stratigraphy in the Division Mountain area. In 1995 eight drill core samples were sent for analysis at Vancouver Petrographics Ltd. in Langley, British Columbia (Gish, 1995). All the samples were recognized as intermediate-mafic volcanic lithology, representing altered porphyritic andesite to basalt.

7.3 Stratigraphy – Whitehorse Trough

Other important stratigraphic units assigned to the Whitehorse trough basin underly the coal exploration licence areas of Yukoterre and will now be briefly described in the following sections.

7.3.1 Cache Creek Terrane

The Cache Creek Terrane is an oceanic allochthon within the Whitehorse trough that comprises of a massive, finely crystalline, locally crinoidal and fusiline limestone with limestone breccia, recrystallized limestone, and minor dolostone (Colpron, 2011). These rocks were thrust over Whitehorse Trough strata during a Middle Jurassic accretionary event.

7.3.2 Lewes River Group

In the Whitehorse trough the Lewes River Group is represented by the Povoas Formation and the Aksala Formation.

The Povoas Formation is interpreted as predominantly subaqueous lava flows and volcanoclastic deposits (Templeman-Kluit, 1978).

The Aksala Formation is assigned to the upper member of the Lewes River Group. The Aksala Formation is interpreted as platform to slope, reef, and littoral deposits (Templeman-Kluit, 1978).

An unconformity (spanning approximately 5 Ma.) separates this formation of the Lewes River Group from the overlying Laberge Group (i.e. Richtofen, Nordenskiold and Tanglefoot Formations).

7.3.3 Nordenskiold Formation (Laberge Group)

The Nordenskiold Formation is the middle unit of the Laberge Group and underlies the Tanglefoot Formation and overlies the Richtofen Formation. It is characterized massive

bedded crystal-rich volcanoclastic rocks. It is approximately 100 meters thick and occurs mainly as isolated, massive outcrops near the centre and western margins of the Whitehorse Trough. U-Pb zircon ages date the formation at a range of 188.5 – 182.5 Ma. It represents mainly sub-aerially erupted pyroclastic beds.

7.3.4 Tantalus Formation

The Tantalus Formation (Middle Jurassic-Lower Cretaceous) overlies unconformably with the Tantalus Formation, the uppermost sequence of the Laberge Group. It consists of chert-pebble conglomerate and coal-bearing sandstone and mudstone. This formation is host to the major coal deposits mined at Tantalus Butte and Tantalus immediately northeast of Carmacks. This formation is at least 1000 meters thick and occurs widely scattered throughout the Whitehorse Trough and represents sedimentation in fluvial and lake environments.

7.4 Detailed Geology of the Division Mountain Coal Measures

Coal seams occur throughout the 450 meter thick Tanglefoot Formation but to date the thickest and most continuous accumulations of coal in the Division Mountain area are found to be present near the base of the Tanglefoot Formation. Internal stratigraphy and structure of the recessive coal measures is best illustrated on the geology map (Figure 7.3) and on cross sections showing drill hole data included within the internal compilation report.

At Division Mountain three depositional basins are present (Gish, 2000). On the southeastern end of the coal deposit at approximately Sections 9+00N and Section 10+050N, Seams 1a to 2b lie near the Tanglefoot-Richtofen contact. Seam 1 a, which forms the base of the coal measures, is unusually thick here. For example in Hole 97-61 Seam 1a reached a maximum thickness of 17.3 meters (Gish, 2000). A relatively thick barren interval lies between Seams 2 and 3.

A stratigraphic cut-out or pinch-out is thought to occur on Section 10+050N where only Seam 1a at 1.7 meters thick is present near surface (Gish, 2000). However Hole 97-60 intersected a 16.8 meter thickness in the same seam just 80 meters down the dip (Gish, 2000).

Between Section 10+050N and Section 13+962N, another pinch-out is present (Gish, 2000). Seams 1 to 3 are moderately thick and lie in an evenly spaced manner within a 50 meter stratigraphic interval approximately 20 to 30 meters above the Tanglefoot-Richtofen contact. Seams 4 and 5 are also present above a 40 to 50 meter barren interval.

Northwest of Section 13+962N, Seams 1 and 2 are not present (Gish, 2000). A number of relatively thin subsidiary splits of Seams 3, 4 and 5 have been intersected by drilling, however only the basal Seams 3c and 3e have any economic significance (Gish, 2000).

7.5 Structural Geology

Deformation in the Whitehorse Trough occurred primarily as flexural slip folding during the Middle Cretaceous, within synclinal and anticlinal axes trend north-northwest, parallel to the trough axis (See Figure 7.6). Fold wavelengths are generally between 500 meters and 2 kilometers, although complex tight folds with wavelengths less than 3 meters have been noted (Gish, 2000). The coal-bearing Cairnes Syncline outlined by 1994- 95 exploration trends 310° and plunges 9° to the northwest. The limbs dip between 25° and 72° . Drilling in 1997 and 1999 concentrated on the coal rich east limb of the Division Mountain Syncline about 2 km south of the Cairnes Syncline. This syncline also trends approximately 310° with the east limb dipping 45° to 55° to the southwest. Exploration to date has not yet defined either the fold nose or the western limb of the Division Mountain Syncline. The folded stratigraphy has only been slightly modified by northwest- and northeast-trending normal faults with minor dip-slip displacements (Gish, 2000).

In the northernmost portions of the Whitehorse Trough, the Tantalus Basins appear to have been deposited in narrow valley-confined systems during intervals of regional convergence of Stikinia, Quesnellia, and the Yukon-Tanana Terranes with the North American craton. Deformation of the pre-Tantalus strata in the Whitehorse Trough began in the Bajocian and continued during deposition of the Tantalus Formation, continuing into the Paleogene. The *en echelon* pattern of folds in the Whitehorse Trough suggests that some dextral strike-slip movement may have occurred during Upper Jurassic to Lower Cretaceous folding and this may have directly influenced the geometry of the Tantalus basins (Colpron, 2011). Lowey (2008) estimated that the Tantalus and Tanglefoot Formations in the northern part of the Whitehorse Trough must have been buried by about 3-4 kilometers of strata, prior to Aptian to Albian uplift, erosion and deposition of volcanic strata (Mount Nansen Group) and overlying Carmacks Groups (Colpron, 2011).

7.6 Mineralization

Coal mineralization has been identified in a large number of occurrences throughout the Whitehorse Trough, many of which are included within the current licence holdings of Yukoterre.

7.6.1 Division Mountain

There are limited natural exposures of coal in the Division Mountain area. Almost all of the bedrock occurrences have either been located by hand or machine trenching through glacial till cover in areas of coal float or where coal-bearing stratigraphy has been projected to be present. Coal seams occur throughout the 450 meters thick Tanglefoot Formation but the thickest and most continuous accumulations of coal are present near the base of the unit. Coal-bearing rocks comprise of interbedded sandstones and shales in roughly equal proportion (Carne, 1992).

The coal seams are generally vitreous to dull black in color fissile to massive bedded and brittle (Gish, 1995). Fissility varies with argillaceous content (Gish, 1995).

Sections of coal with moderate to high amounts of argillaceous matter are also more susceptible to shearing. Pyrite content is low and occurs as flakes or plates along bedding/shear planes. Calcite veins (<1mm) also occur infrequently within the coal seams (Gish, 1995). Competency of the coal intersected in drill holes is variable but was, for the most part, rated as high (Gish, 1995). Petrographic analysis of the coal seams noted that on a mineral-matter free basis, the coals form the Teslin Creek portion of the Division Mountain deposit contained an average of 54% vitrinite, predominantly desmocollinite. Macerals of the liptinite group (primarily sporangite) comprised on average 10% of the coal, and an average total inertite content (principally fusinites) was approximately 36% (Gish, 1996).

Internal stratigraphy and structure of the recessive coal measures is best illustrated on the geology map (Figure 7.3) and on cross sections showing drill-hole data in the Norwest 2008 Geology report.

7.6.2 Division Mountain Area

Coal measures have also been identified at the Red Ridge, Upper and Lower Cub Mountain and Corduroy Mountain, occurrences, all within 7.5 kilometers of Division Mountain.

As noted in section 6.1 of this technical report, extensive exploration during the period 1993-2008 at Division Mountain resulted in a significant historical reserve and resource estimate of Bituminous High Volatile B Coal. But there are other potential areas for mineralization within the Division Mountain property area.

Historical activities including geological mapping, trenching and other exploration activities in the Division Mountain area at Cub Mountain and Corduroy Mountain exposed northeast-dipping coal sequences and Tanglefoot Formation stratigraphy. Gish (2000) noted that these coals were possibly a fold repeat of the coal-bearing Division Mountain and Cairnes Syncline Tanglefoot Formation sequences. A description of the mineralization in these localities is now provided.

7.6.2.1 Red Ridge

The Red Ridge (also named Vowel, see Minfile 115H012, Appendix 2) coal occurrence was first discovered in 1907 by D.C. Cairnes of the Geological Survey of Canada. It lies approximately 5 kilometers along strike to the northwest of the Teslin Creek discovery area (see Figure 2.1) and occurs approximately 245 meters below the base of the Tantalus Formation (Carne, 1992).

In 1972 Arjay Kirker Resources Ltd. relocated the coal showing and measured a section from the top of Red Ridge northeast to the Nordenskiöld River, which defines

approximately 245 meters of Tantalus conglomerate overlying finer-grained Tanglefoot sedimentary rocks containing coal and carbonaceous shale.

In 1993, a 25 meter hand trench was cut near the break-in-slope to the Nordenskiöld River valley. A further 15 meters was added to this trench in 1997. The trench profile consists of a blanket of glacial soil overlying a series of sub- horizontal layers of arkose-sandstone grit, sand lenses and coal fragment horizons varying in thickness from 20 to 70 cm. Structures within the coal fragment horizon are virtually nonexistent (Gish, 2000). The nature of the stratigraphy in the trench is most likely attributed to downhill creep of a coal horizon uphill at least 10 meters from the initial exposure and it was thought that the probable aggregate true width of the bedrock coal may be in the range of 12 to 15 meters (Gish, 2000). Gish (2000) made no comment as to whether the Red Ridge area should be further explored.

7.6.2.2 Upper and Lower Cub Mountain

The Upper Cub Mountain and Lower Cub Mountain showings (also known as Klusha, see Minfile 105E 028, Appendix 2) are located approximately 6 kilometers and 3 kilometers, respectively, to the northeast of the Division Mountain deposit (See Figure 2.1). The Lower Cub Mountain Showing is 1.5 kilometers due south of Cub Mountain and the Upper Cub Mountain Showings are located 1.0-1.3 kilometers north of Cub Mountain.

In 1997 a 30 meter long hand trench was completed on the Lower Cub Mountain occurrence. The trench exposed coal, shale, siltstone and sandstone of the Tanglefoot Formation. It was cut perpendicular to bedding near the location where numerous patches of coal float were found. Excavator trenching tested this area in 1998 but only encountered 12.8 meters of coaly shale in fifteen seams, the thickest being 9.1 meters. Permafrost and overburden exceeding the 6 meter reach of the excavator prevented the exposure of bedrock in many of the trenches. Gish (2000) noted this this area warranted a 500 to 600 meter, southwest oriented excavator trench from the Tanglefoot-Tantalus contact at Cub Mountain towards Division Mountain.

Favorable stratigraphy was identified at the Upper Cub Mountain occurrence but drilling in 1999 suggests that the area lies near the contact of the Tanglefoot and Tantalus Formations and maybe higher in the stratigraphy compared to where coal has been stratigraphically discovered in the Division Mountain area.

7.6.2.3 Corduroy Mountain

Corduroy Mountain (see Minfile 105E 022, Appendix 2) is located approximately 6 kilometers east-southeast of the Division Mountain deposit (See Figure 2.1).

Tanglefoot Formation stratigraphy was explored by trenching on the west side of Corduroy Mountain in 1997. This area is 5 kilometers along strike to the southeast of the same stratigraphy exposed at Cub Mountain.

The 1999 trenching program completed a 360 meter long trench and uncovered an aggregate coal thickness of 23 meters in 25 coal seams, the thickest seam being 3 meters (Gish, 2000). Drilling in 1999 below the excavator trench exposed several additional coal seams with one hole returning an aggregate thickness of 17.96 meters of coal.

The rocks strike 130 to 150 degrees and dip 45 to 85 degrees to the northeast. Due to overburden thickness which exceeded the 6 meter limit of the excavator, the most favorable part of the lower Tanglefoot stratigraphy at Corduroy Mountain was not explored (Gish, 2000). Gish (2000) recommended that further excavation trenching should be used to define targets for resource definition.

7.7 Coal Quality

There is extensive information on coal quality in the Whitehorse Trough from studies conducted on the Division Mountain and Tantalus Mine deposits. Past studies suggested that the coal quality improves in the northernmost sections of the Whitehorse Trough. Studies also show that slight variations in coal quality can exist within individual deposits as is the case in Division Mountain. The following sections provide an overview of the coal quality data in these areas.

7.7.1 Division Mountain

During the drilling programs in the late 1990's, whole core samples of coal intersections were sent to Chemex Labs Ltd. of North Vancouver, B.C. in 1992, 1994 and 1995 and to Loring Laboratories Ltd. of Calgary, Alberta in 1997 for proximate analysis (Gish, 2000).

Coal quality data for the 1972 to 1997 drill core intersections are tabulated within the synoptic drill logs that were compiled in the internal compilation report. Analytical certificates from the 1997 diamond drill core samples were also detailed by Gish (2000).

A seam by seam listing of coal quality data for each drill-hole intersection is also available in company reports and presented in the internal compilation report. Gish (2000) also calculated a tonnage estimate for each intersection using an area of influence equal to half the distance to the next drill-hole but not exceeding 250 meters from the bedrock surface.

Gish (2000) noted that coal quality in the area of the relatively shallow-dipping southeast limb of the Division Mountain Syncline was better than the deposit average. For instance, he noted that the calorific value of the seam in this portion of the deposit was 5,315 cal/g versus the average of 5,161 cal/g, considered to be due largely to lower ash contents. Other seams in this portion of the deposit were also noted to have lower

ash content (Gish, 2000), for example 8.7% ash (Seam 3d, Section 9+100N), 8.2% ash (Seam 3c, section 10+00N), 8.2% ash (Seam 3b, Section 9+700N), 13.0% ash (Seam 2c, section 9+700N), 12.3% ash (Seam 2b, 9+700N) and 14.3% ash (Seam 1b, 9+100N). Gish (2000) concluded that the coincidence of shallow-dipping, low ash coal in thick seams is even more important in the context of the excellent potential for further expansion of near-surface deposits by additional drilling in the south-easternmost portions of the Division Mountain Syncline.

More recent coal quality tests were conducted by Norwest in 2005 and 2006. Prior to 2005, limited studies had been conducted with regards to washability analysis and estimating the potential of coalbed methane resources. Norwest completed proximate analysis on samples from the 2005 drilling program and calculated an average analysis for the Division Mountain deposit raw coal, based on an air dried basis, to be 2.8% Residual Moisture, 27.6% Ash content, 26.3% Volatile Matter, 43.7% Fixed Carbon, 0.45% Sulphur and a calorific value of 5,159 cal/g.

The average analysis corresponds to an ASTM rank of High Volatile Bituminous “B” Coal (Norwest, 2006). No coking test, long proximate analysis, or rank analysis has been performed on samples from the property (Norwest, 2008). The low Sulphur nature of the coal may reduce the need for expensive scrubbers in a thermal power generation facility (Carne, 1992). Trace element content is also very low with average selenium values of 0.6 ppm, antimony values of 0.5 ppm and arsenic values of 3.0 ppm (Carne, 1992).

It was noted by Norwest that in a possible scenario of the coal being mined and provided to a mine-mouth power generation facility there would be no need for the coal to be washed. However, if the Division Mountain coal was to be exported to global markets, they noted it would need to be washed, prior to shipment.

The author has been unable to verify the coal quality data though the procedure for testing and the related analysis appear to be consistent with standard coal testing procedures at that time and therefore it is considered that the results have a high degree of probability to be reliable. Yukoterre would need to conduct their own verification of coal quality at Division Mountain as the new owner of the property.

7.8 Coal Bed Methane and Conventional Hydrocarbons

In 1992, R.C. Carne was one of the first geologists to discuss the potential for coal bed methane in the Division Mountain area. Carne at that time, reported that “the coal has a high liptinite content” and when he coupled that with the high volatile rank, he concluded that was evidence that the potential for significant coalbed methane resource was high.

Coal bed methane is a gas created as a result of coal formation. Natural gas is approximately 74% methane. Gas from coal beds is approximately 98% methane and is invariably low in hydrogen sulphide and sulphur dioxide, regardless of the Sulphur

content of the coal and coal measures (Carne, 1992). Coal bed methane has a calorific value similar to, and substitutes readily for, natural gas (Carne, 1992). The gas content of a coal bed is variable and is related to gas formation during coalification as well as the post-depositional history and current geological condition of the coal bed.

In the 1990's the Alberta Geological Survey standard used for estimating coal bed methane potential was 13.5 cubic meters of gas per tonne of bituminous coal in seams greater than 0.5 meters thick, half of which is considered to be recoverable. Carne (1992) used this methodology to estimate that the recoverable coal bed methane potential of Division Mountain could be as high as 75 billion cubic meters.

Lowey et al., (2009) evaluated over 600 samples from the Aksala, Richtofen, Tanglefoot and Tantalus Formations using Rock-Eval programmed pyrolysis and combustion testing complimented with a study of thermal alteration indices (TAI) of palynomorphs, conodont alteration indices (CAI) and vitrinite reflectance. The Povoas and Nordenskiold Formations were not sampled as they consist of volcanic and volcanoclastic rocks, and hence have no source rock potential. Both the Tanglefoot and Tantalus Formations were defined to be good source rocks and that are immature to early-mature and gas-prone. They noted that potential petroleum (gas) generative intervals occur at surface and in the shallow subsurface in deltaic mudstones (Tanglefoot Formation) and fluvial mudstones (Tantalus Formation). They concluded that the most prospective areas for petroleum exploration included Five Finger Rapids, Division Mountain and Tantalus Butte and in the northern portion of the Whitehorse Trough. As previously noted, with the exception of Tantalus Butte, the coal exploration licences cover all of these prospective areas for petroleum exploration.

Petrel Robertson Consulting Ltd. who completed an assessment of the petroleum resource potential of the Whitehorse Trough for the Yukon Geological Survey in 2012 also concluded that there was hydrocarbon prospectivity in nine plays within the Whitehorse trough region, namely:

- 7 Cache Creek Assemblage Structural (speculative)
- 8 Lewes River Structural
- 9 Hancock Stratigraphic
- 10 Tanglefoot (Structural)
- 11 Tanglefoot (Stratigraphic)
- 12 Tanglefoot CBM (Speculative unconventional)
- 13 Richtofen Stratigraphic/Tight shale/shale gas (Speculative unconventional)
- 14 Tantalus Stratigraphic/Structural
- 15 Tantalus CBM (Speculative unconventional)

8 Deposit Types

As specified in GSC Paper 88-21 coal deposits are commonly classified with respect to their “Geology Type”. Coal “Geology Type” is a definition of the amount of geological complexity, usually imposed by the structural complexity of the area. The classification of a coal deposit by “Geology Type” determines the approach to be used for the resource/reserve estimation procedures and the limits to be applied to certain key estimation criteria. The identification of a particular “Geology Type” for a coal property defines the confidence that can be placed in the extrapolation of data values away from a particular point of reference such as a drill hole.

The classification scheme of GSC Paper 88-21 is similar to many other international coal reserve classification systems but it has one significant difference. This system is designed to accommodate differences in the degree of tectonic deformation of different coal deposits in Canada. Four classes of Geology Type are provided for that range from the first, “low”, which is for Plains type deposits with low tectonic disturbance; to the fourth, “severe”, which is for Rocky Mountains type deposits.

The Division Mountain property falls within the ‘moderate’ category based on broad open folds (wavelengths from 400 m to well over 1.5 km), relatively uncommon faults (displacements ranging from 10’s of meters up to 100 m) and average bedding inclinations of approximately 50° (range from 25° to 72°).

Coal deposits are further classified on the basis “Deposit Type” as defined in GSC Paper 88-21 which refers to the extraction method most suited to the coal deposit. There are four categories, which are:

- 7** Surface
- 8** Underground
- 9** Non-conventional
- 10** Sterilized.

The Division Mountain deposit is considered to be a “Surface” mineable deposit.

9 Exploration

Exploration on the Division Mountain Property by Yukoterre in late May and early June of 2018 was designed to test the possible extension of the coal seams from the northeastern corner of the proposed Pit #4 outlined by Norwest (2008) to verify the proposed pit boundaries and test the possible extension of coal seams identified on the surface in that immediate area of the property.

The author completed reconnaissance traverses of the area northeast of the proposed Pit 4 in Norwest (2008). The reconnaissance efforts served to identify the presence of several coal seams at surface the extent of which was not possible to fully determine. In addition, examination of past data also indicated that coal seams existed 300-400 meters west of the proposed Pit 4 and also possible outcrops of coal on the west side of Division Mountain. Due to lack of trail access and the limited scope of the 2018 exploration program it was not possible to investigate these areas.

The 2018 exploration program and additional reviews of previous work concluded that any future exploration efforts should include and examination of areas with coal signs yet to be explored as these areas hold potential to expand the known coal deposits, and include:

1. An area west of proposed Pit 4 with coal float identified over an area of up to 400 meters in strike and 250 meters in width.
2. Possible coal outcrops on the western side of Division Mountain.
3. Testing of known coal outcrops in the Corduroy Mountain area as this could be a repeat structure of the Cairnes Syncline.

These three areas hold the potential to identify repeat structures to the known structures in the Division Mountain area that could host significant coal deposits.

The area west of Proposed Pit 4 is considered to be of the highest priority. This could be completed through the construction of new trails into the area, prospecting, geological mapping and trenching to verify the existence of coal seams/outcrops and then potentially followed by reverse circulation or conventional drilling techniques. It was also observed that coal seams might exist from historical geological maps by Carne et al (2005) but access to that part of the property would be a lot more challenging due to the lack of access trails and the steep topography of Division Mountain. Access would have to be constructed from the southwestern portion of the property and therefore examining the southwestern portion of the property initially is a more practical approach to the future exploration sequence for the Division Mountain area. These areas were deemed as having potential to host additional significant coal seams that might potentially be the western portion of the major synclinal fold known to host the coal deposits in the eastern side of Division Mountain.

In addition reconnaissance efforts of Corduroy Mountain indicated that access to the area was relatively easy due to moderate topography and future exploration with a focus on additional drilling of the known coal seams in that area should be considered by Yukoterre. In addition, other coals seams known to occur in the Division Mountain area remain relatively unexplored and provide Yukoterre with the potential to find new coal deposits in the area.

The most effective exploration techniques to explore for coal in the Division Mountain remain to be trail construction to provide access for initial trenching followed by reverse circulation or conventional diamond drill methods.

10 Drilling

10.1 Rotary Air Blast Drilling

Rotary Air Blast (“RAB”) drilling was completed by Ground Truth Exploration Ltd. from Dawson City. The four RAB drill-holes were completed in late May and early June of 2018. They were conducted to test the possible extension of coal seams on the northeastern corner of the proposed Pit 4.

A rotary air blast (RAB) drill had been selected for the work as it was thought to be highly portable in nature, would not have any environmental impacts, and could complete drilling in a time effective manner. However, the RAB drill used suffered numerous mechanical breakdowns, could not drill through any stratigraphy once wet conditions were encountered, and even though it was highly portable set up times were slow and drill footage productivity was less than 30% of original estimates provided by the contractor, Ground Truth Exploration Services.

Crews traversed the access trail daily to the work area. The trail is generally 3-4 meters wide and is currently passable with an ATV and/or a 4WD pickup. Minor upgrading of the trail would be required to allow for improved access as there are a couple of areas along the trail that are flooded and in addition there are two major creek crossings. The daily traverse by ATV took crews approximately 75 minutes to traverse in each direction from Scuttlebutt Lodge to the drill sites.

The results demonstrated that the seams in this area beyond the proposed extent of the Pit as outlined by Norwest (2005) were not of any significance and therefore the proposed pit outline by Norwest was determined to be highly accurate.

11 Sample Preparation, Analyses and Security

No samples were tested in the 2018 exploration program.

12 Data Verification

Yukoterre has not completed any verification of historical data.

13 Mineral Processing and Metallurgical Testing

There has been very limited work done on metallurgical testing and processing techniques during the exploration history of this property and none completed on the exploration samples obtained during the 2018 exploration program.

It is therefore not considered applicable for reporting at this time. Initial results by Norwest in 2008 indicated that the coal may require washing after crushing for market acceptability but would not be necessary for use in a mine mouth power generating facility. This data was not verified by the author and as previously mentioned coal quality issues would need verification by Yukoterre as the new property owner.

14 Mineral Resource Estimates

There are no current mineral resource estimates on the Division Mountain property. Historical mineral resources identified by Norwest (2008) have not been verified by Yukoterre. See section 6.1 for more information related to historical estimates.

15 Mineral Reserve Estimates

There are no current mineral reserve estimates on the Division Mountain property. Historical mineral reserves identified by Norwest (2008) have not been verified by Yukoterre. See section 6.1 for more information related to historical estimates.

16 Mining Methods

Not applicable to this report.

17 Recovery Methods

Not applicable to this report.

18 Project Infrastructure

Not applicable to this report.

19 Market Studies and Contracts

There have been limited market studies done to date for this project. McLoskey et al (2008) conducted studies on coal prices for the feasibility study prepared by Norwest. However these are out of date and at the time were also designed to examine the coal export markets.

Future studies on coal pricing to a mine mouth located power generation facility will need to be accompanied with detailed studies on the marketability of the electricity within Yukon's isolated electrical grid or for new industrial developments will need to be completed in the future in order to further determine the actual viability of any coal mine in the Division Mountain area.

20 Environmental Studies, Permitting and Social and Community Impacts

20.1 Environmental Setting

The Division Mountain project is located within the Boreal Cordillera ecozone which covers southern Yukon and Northern British Columbia.

The ecozone consists of several mountain ranges of the Northern Rockies, as well as several plateaus. Ice age glaciers covered virtually all the plateaus, which are heavily eroded and contain large deposits of glacial debris. The mountain ranges of the ecozone are generally lower than those of the coastal ranges. Summers are brief and cool, winters typically long and cold. Mean annual temperatures are -0.7°C - -0.3°C , with the average temperature rising above 10°C from one to three months per year, depending on elevation. Mean annual precipitation is 460-700mm, with 30-65% falling as snow. Above treeline (1,000 – 1,400 meters) the weather may be considered alpine, with much cooler temperature and permanent ice and snow cover at high elevations.

Lower elevations are generally forested with White Spruce and lesser density of Pine and Aspen. Subalpine Fir becomes more abundant at progressively higher elevations, eventually giving way to deciduous shrubs such as scrub birch and willows. The highest elevations consist of alpine vegetation such as shrubs, herbs moss and lichen.

Species of wildlife include Elk, Moose, Caribou, mountain goats and sheep, bears, as well as several species of migratory and sedentary birds.

20.2 Permitting

The mining industry in Yukon is managed according to several key pieces of legislation. In general, The *Yukon Environmental and Socio-economic Assessment Act* (YESAA), *Yukon Waters Act* and *Territorial Lands (Yukon) Act*, and *Yukon Coal Regulations* must all be addressed prior to the issuance of any authorizations that would permit the Division Mountain Coal Project to proceed and/or exploration of the current licence holdings.

20.2.1 Permitting – Exploration Licence

In 2017, the initial stage of work for Yukoterre Resources Inc. was to renew previous exploration permits so that new work programs could be conducted. Yukoterre Resources Inc. filed and received approval for an exploration permit from the Chief of Mining Lands, Yukon Energy, Mines and Resources to conduct a limited drilling program that was subsequently completed in June, 2018.

The filings involved submitting a Form 1 application for a Class 3 Level exploration permit to the Designated Office of the Yukon Environmental and Assessment Board in Whitehorse, Yukon. These document filings were quite detailed and required various

support documents including emergency response plans, archeological reports (if available), oil spill response plans, maps depicting proposed areas of exploration, proposed access routes, and a variety of other documentation. Consultation efforts with affected First Nations, who have traditional lands in the area, were also conducted. Typically the primary contact in this situation within the First Nations government is the Director of Lands (or equivalent title) and the author held meetings with three of the four affected First Nations to discuss the proposed program. As the work program undertaken was consistent with previous work programs conducted in the Division Mountain area there will be few to no problems in obtaining the permit.

Assessments formerly undertaken by the Yukon government for any exploration permits are conducted by the arms-length Yukon Environmental and Socio-economic Assessment Board (YESAB) through one of its six Designated Offices in Yukon. In the instance of this project, the applicable designated office is located in Whitehorse, Yukon. YESAB operates under YESAA which stands for the Yukon Environmental and Socio-economic Assessment Act. This relatively new federal legislation is now fully in effect in the Yukon. It provides for a single environmental and socio-economic assessment process for projects under federal, territorial or First Nation jurisdiction. This assessment is part of the overall review and approval process that will apply to all exploration and development activities for resource and industrial sectors.

YESAA assessors must conduct their assessments within specific time lines. As part of the assessment, they seek input from government and First Nations and provide opportunities for the public to provide comments on proposed projects. The assessment process basically consists of identifying the environmental and socio-economic effects of a project and appropriate mitigation before providing a recommendation to the Decision Body (government) on whether a project should proceed. The YESAB has an on-line public registry that is accessible to anyone who has access to a computer with a connection to the internet. This registry contains all information related to YESAA assessments. Once the Yukon government reviews the recommendations from the assessor, it will then decide whether to accept, reject or vary the assessment recommendation and state this decision in a Decision Document. The Yukon government continues to be the decision maker and to be responsible for regulating and enforcing permits and licenses for development projects which fall under its legislated authority.

In simple terms, the regulatory process is led by the regulator and generally begins with an application phase where the proponent applies for a permit or license to undertake a regulated activity. The regulator then reviews the application to see whether it is complete and meets certain regulatory requirements. The regulatory phase ends with the regulator either issuing the proponent a permit or license or rejecting the proponent's application. Steps on the left side of the flowcharts are part of the regulatory process.

In summary the following are the steps for an exploration permit:

- The proponent contacts the Designated Office and fills out assessment Form 1.
- The Designated Office conducts the assessment of the project proposal by seeking input from government agencies, First Nations, interested parties and the public. The time from the acceptance of the application by the assessor to the end of the public input period can take up to 30 days or be extended up to 86 days, if required.
- The assessor concludes the assessment based on input received and produces an assessment report with the recommendation on whether the project should proceed. This process can take up to 14 days.
- The Yukon government Decision Body issues a Decision Document accepting, varying or rejecting the assessor's recommendation within 30-90 days of receiving the recommendation. Consultation with applicable Yukon First Nations is undertaken by Yukon during this time.
- If the Yukon government Decision Body determines that the project may proceed, the proponent receives the Decision Document and fills out the applicable exploration class notification form in conformity with the Decision Document and submits it to the appropriate Mining Lands district office of EMR. If the Decision Body determines that the project may not proceed, the project is rejected and the proponent is notified.
- If the Exploration Class notification is approved, the proponent is notified and can proceed with the exploration program.

20.2.2 Lease Acquisition

It is proposed that as part of the permitting process for the 2019-2020 exploration season, Yukoterre also apply for a coal lease to cover the known historical resources in the southwestern portion of the Division Mountain deposit and it is also suggested that the lease cover additional prospective ground in this area. The features of land ownership associated with a lease and with a coal licence were previously described in Section 4.0 of this report.

As field work involving the staking of posts has to be completed to fulfill the terms of any lease application, it is proposed that Yukoterre complete that work in the 2019 field season and then complete an application for a new coal lease for the Division Coal Mine Property. The application for the coal lease is sent to the Chief of Mining Lands in Yukon EMR, which is then reviewed and a recommendation is made to the Minister for approval. The timelines associated with this application are not defined.

20.2.3 First Nations Relations and Consultation

First Nations have demonstrated that they are willing to work with mining companies and support their projects in exchange for benefits to the local community. Many of these new partnerships are reflected in socio-economic agreements designed to foster more local benefits.

In the area of Division Mountain there are four overlapping traditional territories of the following Yukon First Nations:

- 6 Champagne and Aishihik First Nation, Haines Junction Yukon
- 7 Kwanlin Dun First Nation, Whitehorse, Yukon
- 8 Ta'an Kwach'an First Nations, Whitehorse, Yukon
- 9 Little Salmon-Carmacks First Nation, Carmacks, Yukon

For the 2018 exploration permit, Yukoterre conducted consultation activities with these First Nations Groups, and with the exception of Little Salmon Carmacks First Nation, conducted face-to-face meetings. Initial concerns on the proposed program were identified and addressed. It was also noted that if the Division Mountain Project ever did proceed to development there would be a need for Yukoterre to establish socio-economic and environmental agreements with each First Nation affected through traditional land rights. These are typically negotiated with the Chief and Council of each First Nation. Elements of these agreements typically include specialized training, scholarships, contracting opportunities, environmental monitoring, recognition and protection of traditional lifestyles, employment and training opportunities, and equity participation, are some of the topics discussed in these negotiations.

First Nation economic development corporations involve themselves in helping to facilitate business relations with local First Nations companies and/or strategic alliances.

Key considerations for consultation with First Nations that should be addressed by companies when researching and developing a project proposal for either exploration or licensing applications include (After Yukon EMR, 2017):

- identify nearby communities
- identify key contact people in nearby communities (e.g. chief, councillors, lands officer, administrators, mayor)
- identify issues and concerns of importance to the communities
- communicate the company's short and long term plans to the community
- be aware of local cultural differences and communication styles
- initiate meetings to exchange information between the company president and the chief
- Director of Mineral Resources or other senior official(s)

The Yukon Chamber of Mineral Resources based in Whitehorse is also an excellent resource to aid companies in preparing for Permitting and First Nations Consultation processes.

21 Capital and Operating Costs

This is not applicable to this report.

22 Economic Analysis

This is not applicable to this report.

23 Adjacent Properties

This technical report does not utilize any data and/or interpretations from adjacent properties. Nor are there any known adjacent coal properties to the knowledge of the author.

24 Other Relevant data and Information

This is not applicable to this report.

25 Interpretation and Conclusions

The Division Mountain property potentially hosts significant tonnages of high volatile bituminous “B” coal. Most of the coal occurs in the Middle to Upper Jurassic Tanglefoot Formation, which was deposited in a complex fluvial-deltaic depositional environment. The geology type is “moderate” according to the guidelines set forth in Geological Survey of Canada paper 88-21.

Exploration has focused on a 6.5 kilometer long by 1.5 kilometer wide southeast trending area immediately adjacent to Division Mountain. Drilling identified an historical 52.5 million tonne resource of high volatile bituminous “B” coal that is not being treated as a current estimate and has not been verified by the author and would need considerable exploration efforts to be verified by Yukoterre. The author has not determined what would be required for a verification of the historical resource as the current focus of Yukoterre is to identify additional coal deposits at Division Mountain.

Yukoterre has over 62,000 hectares of land within their current coal exploration licences all of which cover potential coal-bearing (and possibly gas and oil-bearing) strata within the Whitehorse Trough region. Many portions of the licence areas have had little to no exploration for coal conducted on them. Therefore there is the potential to identify new coal deposits at Division Mountain and the surrounding area, within the current licence holdings. Previous exploration efforts and recent Yukon government studies have also identified that the Division Mountain Area has the potential to host coal bed methane and conventional/unconventional petroleum resources. There has been no exploration for coal bed methane and/or hydrocarbons in the Whitehorse Trough to date.

26 Recommendations

The project recommendations reflect the current objective of Yukoterre to further identify additional coal deposits at Division Mountain.

The recommendations for 2019 and 2020 are therefore as follows:

- 7 Trail Construction: Trail access is required to be constructed in order to access areas in the southwestern portion of the property area
- 8 Exploration: A comprehensive exploration program should be conducted in the Division Mountain area focusing on the unexplored portions of the property and in particular a possible western limb of the Division Mountain Syncline. This will involve detailed prospecting and geological mapping at a 1:5000 scale and possibly trenching.
- 9 Staking and Lease Application: Staking will be completed and a lease application will be filed with Yukon EMR.
- 10 Permitting: the current Land Use permit expires in November of 2019 so it is recommended that the work program be completed prior to the expiry of the permit. Otherwise permitting of the project work will be required and is not included in the following project budget.

Proposed Budget

Site Reconnaissance and Staking	\$8,000
Lease Application	\$400
Trail Construction and Development	\$13,700
Trenching	\$35,300
Testing and Reporting	\$32,150
Project Contingency	<u>\$9,950</u>
Total	<u>\$100,000</u>

The proposed exploration budget is \$100,000.

27 References

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APPENDIX 1

Certificate of Qualifications

CERTIFICATE OF QUALIFICATION

I, Kevin J. Brewer, of 6 Carnelian Court, Whitehorse, Yukon, Canada, do hereby certify that:

1. I am currently self-employed as a geologist
2. I graduated from Memorial University of Newfoundland in 1984 with a B.Sc. (Hons) in Geology and in 1990 with a Masters of Business Administration. In 2016 I also completed the Certificate of Mining Studies with the University of British Columbia.
3. I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia.
4. From 1980 to current day I have been actively engaged in mineral exploration in Canada, United States, Mexico, and Brazil.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43- 101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I am familiar with the belt of rocks within which the property lies and the exploration model, I have worked on various aspects of the geology during several property visits during the period 2014-2018, with the most recent in June, 2018.
7. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the report, non-disclosure of which would make this report misleading.
8. I am independent of the issuer applying all of the tests in Section 1.5 of National Instrument 43- 101.
9. I have read NI 43-101 and Form 43-101(F1), and the Technical Report has been prepared in compliance with that instrument and form.

Dated at St. John’s, Newfoundland, this 5th day of June, 2019.

Respectively submitted,

“ORIGINAL SIGNED AND SEALED BY AUTHOR”



Kevin J. Brewer, B.Sc (Hons) MBA, CMS, P. Geo

APPENDIX 2

Minfiles

(Please see attached)



MINFILE DETAILS

Occurrence Number: 115H 012

Occurrence Name: VOWEL

Occurrence Type: Hard-rock

Status: Showing

Aliases: RED RIDGE

Deposit Type(s): Coal

Location(s): 61°22'48" N - -136°7'50" W

NTS Mapsheet(s): 115H08

Location Comments: .5 Kilometres

Hand Samples Available: No

Last Reviewed:

Work History

Date	Work Type	Comment
12/31/1997	Trenching	Amount of work done: 15 METRES
12/31/1993	Trenching	Amount of work done: 25 METRES
12/31/1972	Other	
12/31/1972	Trenching	

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC016652	Geochemical map - 115H/8 - Vowel Mountain		Property File Collection	Geochemical Map

Capsule

Work History

Probably first staked about 1903 although the records have not been found. Acquired in Apr/70 as part of Coal Exploration Licence No. 11 by Arjay Kirker Resources Ltd and optioned to Teslin Exploration Ltd, which carried out prospecting and hand trenching in 1972, and staked a coal lease (2961) in Dec/73. The lease was transferred to Braeburn Coal Ltd in May/76.

In Apr/88, All-North Resources Ltd acquired Coal Exploration Licences #416 and #417 covering the area, but no work is recorded for this occurrence.

In Nov/92, Cash Resources Ltd acquired coal exploration and coal mining rights in the area under various Licenses (#479, #480, #486 and #487) and Leases (#3000-3004). Cash carried out hand trenching downslope of the occurrence in 1993 and 1997.

Capsule Geology

A west-dipping coal seam in the Tanglefoot Formation of the Upper Jurassic Laberge Group is poorly exposed in a gully at the base of Red Ridge. The seam occurs about 244 m stratigraphically below the base of the Lower Cretaceous Tantalus Formation conglomerate and has a probable aggregate true width of between 12 to 15 m.

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Map Location



MINFILE DETAILS

Occurrence Number: 105E 028

Occurrence Name: KLUSHA

Occurrence Type: Hard-rock

Status: Drilled Prospect

Deposit Type(s): Coal

Location(s): 61°22'5" N - -135°58'52" W

NTS Mapsheet(s): 105E05

Location Comments: .5 Kilometres

Hand Samples Available: No

Last Reviewed:

Work History

Date	Work Type	Comment
12/31/1999	Drilling	Number of holes drilled: 7 Amount of work done: 592.8 METRES
12/31/1997	Trenching	Amount of work done: 30 METRES Located pockets of coal float.
12/31/1975	Geology	
12/31/1975	Other	

Capsule

Work History

Discovered during geological mapping and prospecting carried out by Resoursex Ltd in 1975, on its Coal Exploration Licence #35, which was issued in Jan/75. This area was previously held under Licence #13, issued to N.H. Ursel & Assoc. Ltd in Sep/70.

In Oct/92, Cash Resources Ltd aquired coal exploration rights to the area surrounding the occurrence under various Coal Exploration Licences (#479,# 480,# 486,# 487) that also encompass the Division Mountain coal deposit (Minfile Occurrence #115H 013), 6 km to the southeast. In 1997, Cash carried out hand trenching in an area containing numerous patches of coal float, 3 km southwest of the occurrence. In Nov/98 Usibelli Coal Mine Inc optioned the exploration area from Cash and in Mar/99 carried out reverse circulation drilling of an area 2 km north of the occurrence. Usibelli subsequently dropped its option, due to low world prices for thermal coal.

In May/2001, Cash Resources Ltd was renamed Cash Minerals Ltd.

Capsule Geology

Coal float was found in gopher holes in an area underlain by Upper Jurassic to Lower Cretaceous Tantalus Formation clastic rocks and Upper Jurassic Tanglefoot Formation of the Laberge Group. The upper member of the Tanglefoot Formation consists of sandstone, siltstone, carbonaceous shales and coal seams, which occur approximately 210 to 240 m stratigraphically below the base of the overlying Tantalus Formation (Long, 1986).

Trenching on the south side of Cub Mountain, exposed Tanglefoot formation lithologies but apparently did not reach bedrock. Drilling north of Cub Mountain targeted a southeast plunging anticline, four holes were drilled across the crest of the anticline and three holes were drilled into the northeast limb. Two of the three holes drilled on the northeast limb intersected narrow coal seams interbedded with sandstones and carbonaceous shales.

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Map Location



MINFILE DETAILS

Occurrence Number: 105E 022

Occurrence Name: CORDUROY

Occurrence Type: Hard-rock

Status: Drilled Prospect

Deposit Type(s): Coal

Location(s): 61°17'55" N - -135°54'36" W

NTS Mapsheet(s): 105E05

Location Comments: 1 Kilometres

Hand Samples Available: No

Last Reviewed:

Work History

Date	Work Type	Comment
12/31/1999	Drilling	Number of holes drilled: 5 Amount of work done: 478.5 METRES
12/31/1999	Geophysics	
12/31/1997	Trenching	Amount of work done: 360 METRES
12/31/1971	Other	Teslin Exploration Ltd could not locate float occurrence.
12/31/1970	Geology	Reconnaissance of three coal licences in the area.
12/31/1908	Geology	

Capsule

Work History

The GSC reported that coal occurs in gopher holes on the south slope of Corduroy Mountain. The area was explored in 1970 and 1971, while it was held as Coal Exploration Licence 12 by Teslin Exploration Ltd which carried out reconnaissance mapping and prospecting.

In Oct/92, Cash Resources Ltd acquired twenty-two Territorial Coal Licences, including Licence Y 408 which encompasses the Corduroy Mountain area. Cash carried out trenching on the west side of Corduroy Mountain in 1997. In Nov/98, Cash entered into an option agreement with Usibelli Coal Mine Inc of Healy, Alaska allowing the company to acquire a 50% interest in the Division Mountain Project subject to certain work conditions. The Division Mountain Project encompasses coal mining rights to the Division Mountain deposit (Minfile Occurrence # 115H 013) and coal exploration rights to the surrounding area under various Coal Exploration Licences. In Mar/99 Usibelli carried out reverse circulation drilling of 5 holes (478.5 m) to test the extent of the coal seams discovered during trenching in 1997. Down-hole geophysical logging was also completed on 2 of the holes. In May/99 Usibelli dropped its option, due to low world prices for thermal coal.

In May/2001, Cash Resources Ltd was renamed Cash Minerals Ltd.

Capsule Geology

The area is underlain by the Upper Jurassic to Lower Cretaceous Tantalus Formation (Upper Member) conglomerate and sandstone, near the contact with underlying Upper Jurassic Laberge Group rocks consisting of sandstone, siltstone, carbonaceous shales and coal seams of the Tanglefoot Formation (Upper Member). Trenching by Cash Resources in 1997, 4.25 km northwest of the float occurrence, uncovered 23 m of coal in 25 seams with the thickest seam being 3 m. Based on the 1999 drilling, which intersected coal in 3 holes, Usibelli projected an estimated 2.1 million short tons of run of mine coal at Corduroy Mountain.

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Map Location